

FISH & WILDLIFE SERVICE
PACIFIC OCEANIC FISHERY
INVESTIGATIONS

SEPTEMBER
1950

SEP 26 1950

A Miller Freeman Publication
TWENTY-FIVE CENTS

PACIFIC FISHERMAN



Featuring MEXICO'S PACIFIC SHRIMP

20,000 TROUBLE FREE HOURS

... is the record of the Enterprise 260 diesel on the purse seiner San Giuseppe, according to her Skipper, Andrew Devlahovich. During this time she has operated entirely on Mobil Products—Gargoyle oils and greases and Delvac 930.

The San Giuseppe and her 12 man crew call San Pedro home port, but most of their time is spent fishing tuna and sardines in California and Mexican waters. Often they are out for months on end so engine performance like this is important to success.

Joe Lozovina, Chief Mechanic, says, "Most boat owners expect about 12,000 hours between overhauls, but we are still operating at peak load and efficiency after 20,000." A good deal of the success they attribute to the expert recommendations of Wayne Hamilton, G. P. Marine Distributor and the unfailing performance of the products he provides.

Wayne Hamilton (left), G. P. Marine Distributor and Andrew Devlahovich, skipper of the San Giuseppe.



Chief Mechanic Joe Lozovina oiling the Enterprise 260 aboard the purse seiner San Giuseppe.



General Petroleum CORPORATION

using nature's gift
to better mankind



PACIFIC FISHERMAN

A Miller Freeman Publication

Vol. 48

No. 10

SEPTEMBER, 1950

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LAST MINUTE NEWS SUMMARY

S. E. Alaska Fishing Fair

Pink salmon production during the first week of the Southeast Alaska season was good in the Prince of Wales Island, Clarence Strait and Ketchikan districts; poor in the northern portion of Southeast Alaska.

Troll salmon prices hit the all-time high in Alaska Aug. 19, when large red Kings sold for 51c and Silvers for 32.25c.

Monterey Strike Settled

The Monterey sardine strike was settled Aug. 20, after nearly three weeks of the season had been lost as result of disagreement over cannery labor wage scales. Settlement was reached on the basis of a 12c per hour increase.

Boats went fishing Aug. 20. The San Francisco fleet, which had been operating steadily, had found very good fishing, with a catch of 2,275 tons Aug. 17.

Alaska Canned Salmon Pack Through August 12, 1950

Compared with figures through August 13, 1949. Based on U. S. Fish and Wildlife Service official reports.

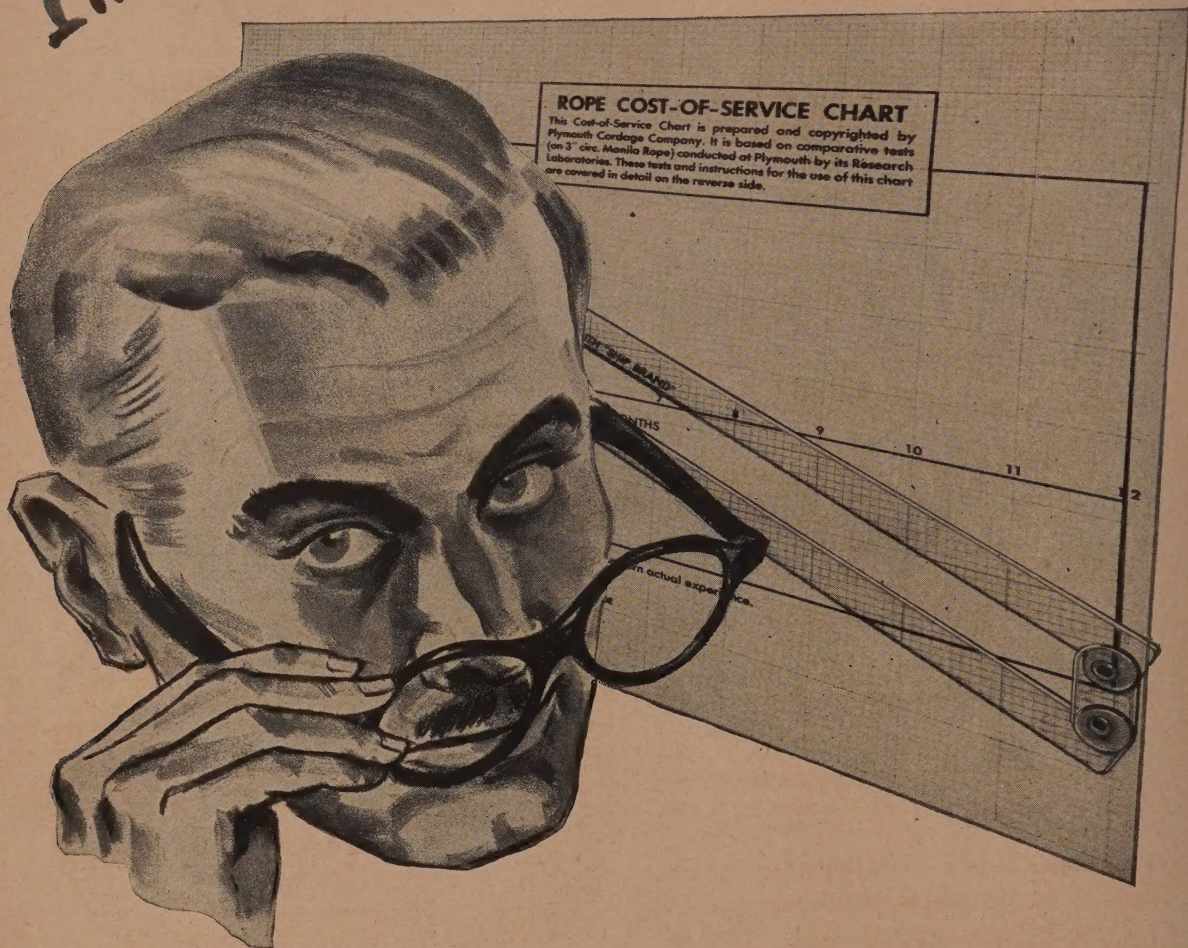
District:	Red	Pink	Chum	King	Coho	Full Cases
WESTERN ALASKA TOTAL—						
1950*	576,014	1,582	25,576	13,160	1,691	618,023
1949	533,668	66	36,411	13,312	103	583,560
Peninsula, South—						
1950 Final	129,727	64,114	48,552	961	5,252	248,151
1949 Final	47,952	70,435	37,672	726	1,476	158,261
Chignik—						
1950	22,644	56,313	17,280	135	302	96,674
1949	52,128	3,953	11,247	130	78	67,536
Kodiak—						
1950	87,927	231,925	73,674	2,632	6,706	402,864
1949	68,666	197,440	60,583	797	2,427	329,913
Cook Inlet—						
1950	175,883	66,728	41,144	32,025	28,555	344,335
1949	163,590	12,217	22,924	30,787	24,131	253,649
Prince William Sound—						
1950	6,458	103,854	52,088	74	8,573	171,047
1949	7,681	273,164	82,601	160	11,121	374,727
Copper River—						
1950	70,247	—	—	4,667	—	74,914
1949	46,450	—	—	2,105	—	48,555
CENTRAL ALASKA TOTAL—						
1950	492,431	522,934	232,738	40,494	49,388	1,337,985
1949	386,467	587,209	215,027	34,705	39,233	1,232,641
Yakutat—						
1950**	2,404	—	10	253	—	2,667
Icy Strait—						
1950	1,825	—	52	10	—	1,887
1949	5,074	267	50	38	22	5,451
Western—						
1950	12,281	482	235	16	9,663	22,677
1949	8,332	1,284	240	409	13,663	23,928
Eastern—						
1950	4,294	192	485	100	723	5,794
1949	—	37	—	8	4,805	4,850
Wrangell—						
1950	3,954	275	793	27	8,738	13,787
1949	7,835	3,640	799	562	5,765	18,601
South Prince of Wales Island—						
1950***	—	168	2	—	4,860	5,030
Southern—						
1950***	—	18	—	—	1,461	1,479
SOUTHEASTERN ALASKA TOTAL—						
1950	24,758	1,135	1,577	406	25,445	53,321
1949	21,241	5,228	1,089	1,017	24,255	52,830
ALASKA TOTAL—						
1950	1,093,203	525,651	259,891	54,060	76,524	2,009,329
1949	941,376	582,503	252,527	49,034	63,591	1,869,031

*Includes Kotzebue-Yukon-Kuskokwim District Pack of King (Final) 9,865 cases.

No operations in 1949. *Season not open in 1949.

"Remember me? Just a short time back I said 'Manila's manila, isn't it?'"

"I hadn't looked at rope costs that way!"



... perhaps you, too, had thought that all manila ropes were very much alike ... that the best price was the best buy. Plymouth's cost-of-service chart proves otherwise! It will surprise you to find out from the chart how ridiculously cheap you'd have to buy other ropes in order to match Plymouth's low cost to use. This chart proves conclusively SHIP BRAND Manila's greater strength, its longer life, its far lower month-to-month service cost. In addition, you can be sure that SHIP BRAND's extra strength and life means extra safety—all the time.

PLYMOUTH CORDAGE COMPANY, PLYMOUTH, MASSACHUSETTS

SEND FOR FREE CHART

—see proof of Plymouth's longer life and operating economy—figure how much less you'd have to pay for other ropes to match Plymouth's low cost of service. A post card brings your free copy—a modified reproduction of the one shown above.

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Cordage Products



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Put the *SEE* in frozen *SEA*food

with Continental's Window-Top Can

Fresh, natural-looking shrimp, crab and lobster sell fast in this remarkable new Continental container. From the bottom up, it has the strength only a can can give. The top — of tough, transparent plastic — is a veritable "picture-window." It shows off your frozen or refrigerated seafood specialties at their tempting best.

Continental's new Window-Top Can is easy to use with simple packing equipment. It's a real business builder. Write, wire or telephone Continental for details!



*You can't beat Continental as a
dependable source of supply!*

TEMPTING DISH, ISN'T IT!

The beautifully lithographed Continental can is lacquered inside and out. Transparent plastic window is seamed on in a simple operation.



CONTINENTAL  CAN COMPANY

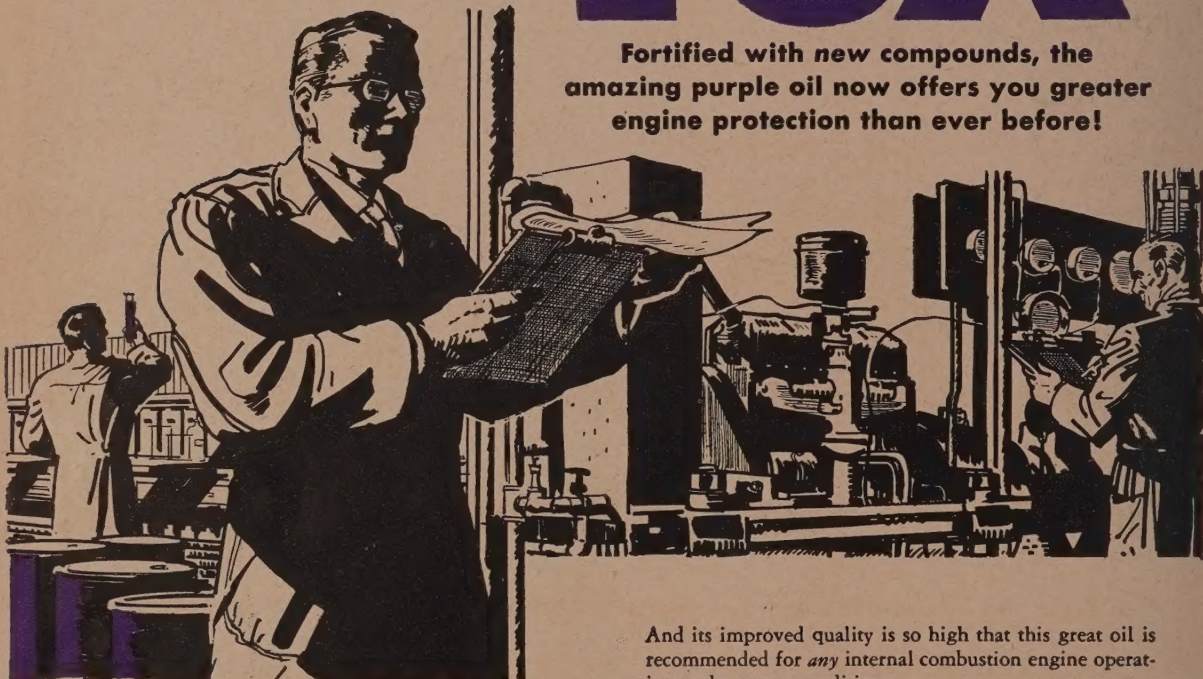
707 South Hill Street, Los Angeles 14, Calif.

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Have you heard about the ***NEW*** **T5X?**

Fortified with new compounds, the amazing purple oil now offers you greater engine protection than ever before!



Surpasses "Supplement 1" specifications

The amazing purple oil is now better than ever! With even greater alkaline reserve, oxidation resistance, detergency and other upgraded qualities, the new T5X surpasses the exacting standards of U. S. Army Specification 2-104B, Supplement 1.

Its superiority has been clearly established in both the Coordinating Research Council gasoline engine tests and the rugged "Caterpillar" Diesel tests.

Protects any internal combustion engine

Powerful new additives have been compounded with a high VI, pure 100% paraffin base to form the new T5X.

And its improved quality is so high that this great oil is recommended for *any* internal combustion engine operating under severe conditions.

Proved under critical field conditions

Field tests made by outside companies under critical operating conditions have *also* proved the amazing stability and performance of the new T5X in all types of equipment—including trucks, tractors, construction equipment, marine engines and varied types of stationary engines.

Substantially reduces engine wear

What the new, unusually high quality of T5X means to you is the opportunity for increased engine efficiency, less wear and lower maintenance and repair costs. And you can prove this for yourself by giving the new T5X a trial in your *own* equipment operating under severe conditions.

**For full information about the new T5X, call your Union Oil Representative.
Or write, wire or call Sales Dept., Union Oil Company, Los Angeles 17, Calif.**



UNION OIL COMPANY OF CALIFORNIA



How to get your fish to market...at a profit!

Can it for the housewife's convenience and brand it so she can identify your quality

Americans will eat half a billion dollars' worth of canned fish this year.

This enormous volume will be bought by housewives seeking new and tempting dishes at tight budget prices. First purchasers will buy on impulse—from the label. Your quality behind this label will build repeat business.

Why not let Canco advise you on fish product packages that *sell*?

Canco's vast resources are at your disposal . . .

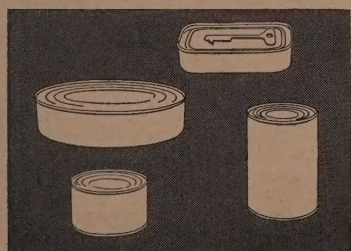
Canco engineers will lay out your plant—giving you blueprint and plans for adding new lines or for new equipment that will save time and money.

Canco nutritionists will formulate your new products; test them in our testing kitchens.

Canco will recommend types of cans, linings, closures—advise you on all technicalities of processing.

To learn the latest on canning fish . . .

CALL **CANCO** FIRST



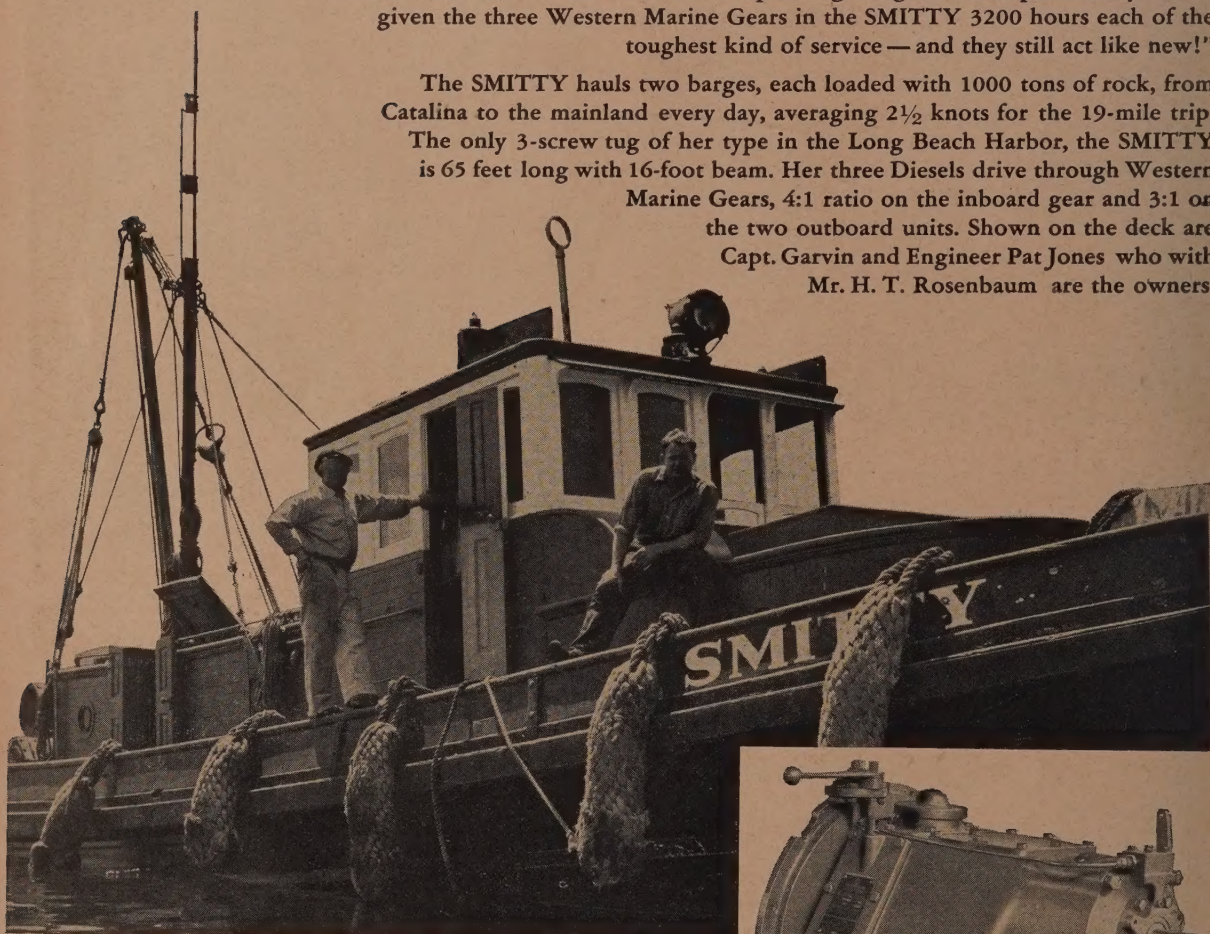
AMERICAN CAN COMPANY

New York • Chicago • San Francisco

"Western Marine Gear Best There Is..."

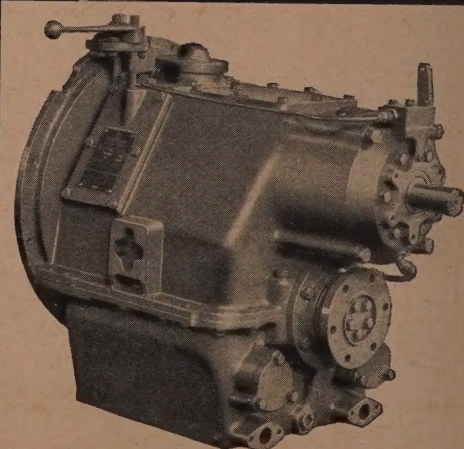
Captain Garvin has been in the tug business for 50 years. He's had plenty of opportunity to compare and judge marine equipment, so he knows what he's talking about when he says, "In all my years in the tug business, I've never seen anything to compare with Western Marine Gears. Their fingertip shifting and simple controls take much of the work out of operating a tug. As for dependability, we've given the three Western Marine Gears in the SMITTY 3200 hours each of the toughest kind of service — and they still act like new!"

The SMITTY hauls two barges, each loaded with 1000 tons of rock, from Catalina to the mainland every day, averaging $2\frac{1}{2}$ knots for the 19-mile trip. The only 3-screw tug of her type in the Long Beach Harbor, the SMITTY is 65 feet long with 16-foot beam. Her three Diesels drive through Western Marine Gears, 4:1 ratio on the inboard gear and 3:1 on the two outboard units. Shown on the deck are Capt. Garvin and Engineer Pat Jones who with Mr. H. T. Rosenbaum are the owners.

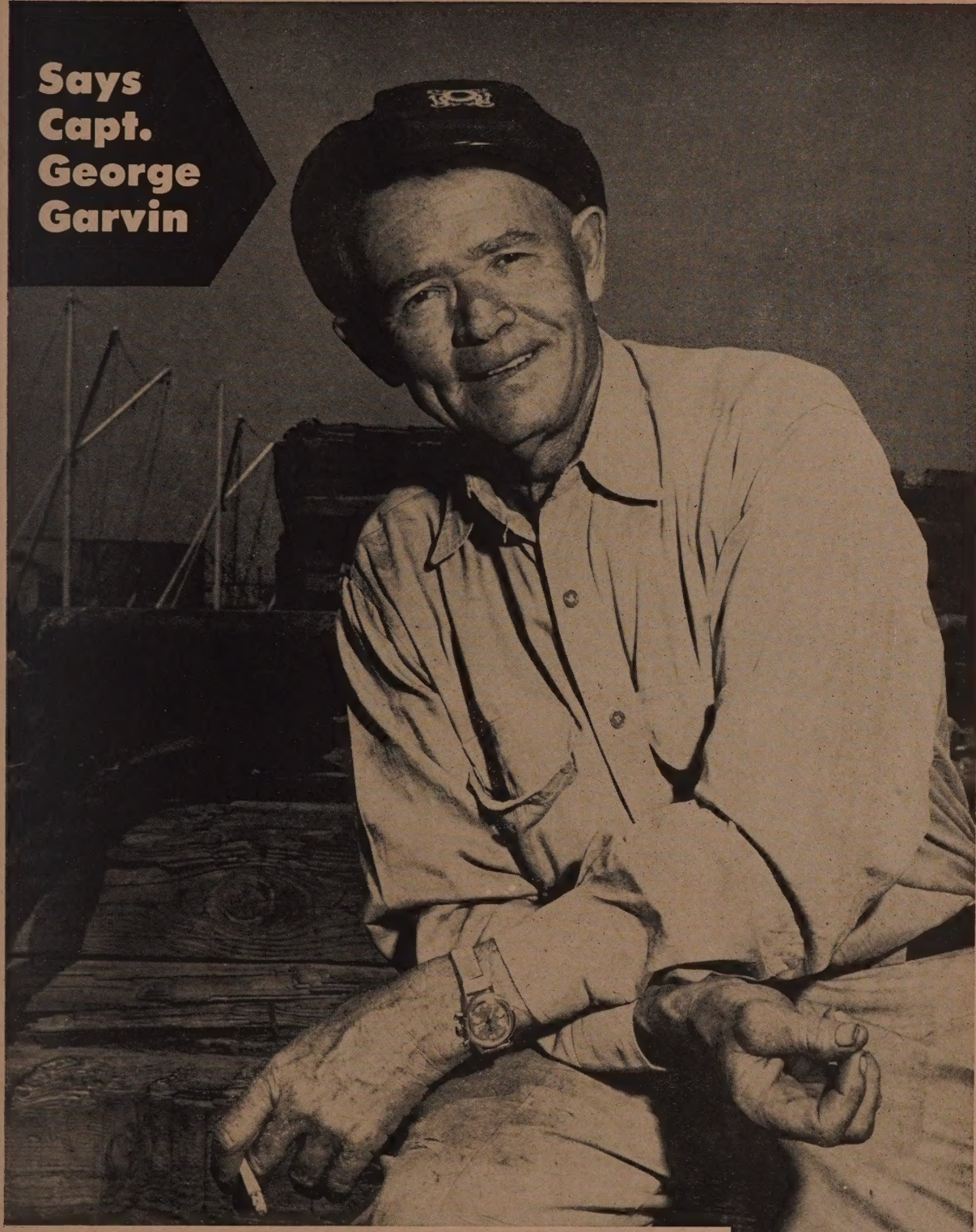


Western Marine Reverse & Reduction Gear

We will be glad to send you further information and literature on the Western Marine Reverse and Reduction Gear (shown here with a power take-off installed), or on other Pacific-Western marine equipment, which includes the planetary type of reduction gears, Vee-Drives, trawl winches, etc. Write, wire, or phone your nearest Pacific-Western office.



**Says
Capt.
George
Garvin**



MEMBER

504

WESTERN GEAR WORKS

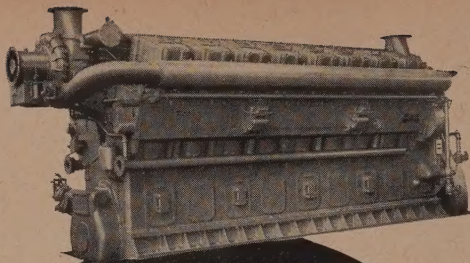


Manufacturers of PACIFIC-WESTERN Gear Products

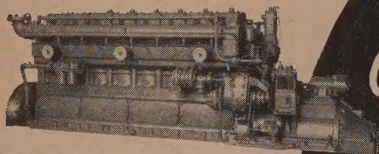
Pacific Gear & Tool Works

Plants at:
Seattle
San Francisco
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Representatives:
Portland
Denver
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TYPE LSV 12 or 16 cyl.
 Atmospheric 1500 to 2000 hp.
 Supercharged 2170 to 3600 hp.



TYPE ENB 4, 6 or 8 cyl.
 Atmospheric 110 to 310 hp.

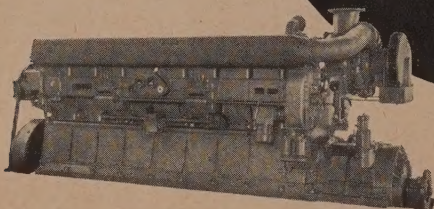


TYPE LS 6 or 8 cyl.
 Atmospheric 750 to 1000 hp.
 Supercharged 1085 to 1800 hp.

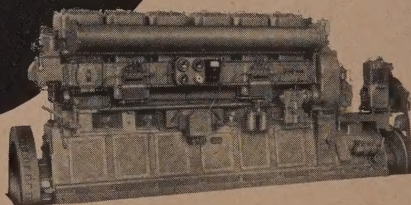


COOPER-BESSEMERs....
Your best bet
from 140 to 3600 hp.

TYPE GS 6 or 8 cyl.
 Atmospheric 355 to 470 hp.
 Supercharged 510 to 680 hp.



TYPE JS 6 or 8 cyl.
 Atmospheric 515 to 685 hp.
 Supercharged 740 to 1300 hp.



PICTURED above are Cooper-Bessemer direct reversing marine diesels of five different types, all thoroughly work-proved, all offering the peak efficiency, long life and low maintenance for which Cooper-Bessemer are so well known throughout the marine industry. Note the horsepower ratings given. These are the latest ratings as influenced by refinements in design as well as new or improved operational features.

Above all, these Cooper-Bessemer marine diesels are rugged, work-wise engines if there

ever were any. From oil sumps to cylinder heads they are engineered to help you squeeze maximum profit from work boat operation.

If you have a powering or repowering job coming up, check with the nearest Cooper-Bessemer office. Be sure to get *all* the facts on the distinctive features that pay off for Cooper-Bessemer users time and time again.

The
Cooper-Bessemer
Corporation

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New Eye Appeal...New

Buy Appeal...New

Sales Punch for Your Labels



PEACH GELATIN DESSERT

- | | |
|------------------------------------|-------------------------------|
| 1 can Sliced Yellow Cling Peaches | 1 1/4 cups syrup from peaches |
| 2 packages cherry flavored gelatin | Whipping cream |
| 2 3/4 cups hot water | |

Drain peaches. Dissolve gelatin in hot water. Add peach syrup. Chill until mixture is partially set and divide in 2 parts. Arrange peaches in oiled mold, pouring one half of gelatin over them. Beat remaining half until light and frothy and pour on top of unwhipped gelatin. Chill until set. Unmold and garnish with peach slices. Serve with whipped cream. Serves 6 to 8



Irma Lucas Dolan

A graduate of University of Wisconsin, where she majored in Food and Nutrition, Mrs. Dolan is nationally recognized for her work in the field of home economics.

She is retained by us to create new and interesting recipes for Schmidt Recipe Labels . . . and prepare them in finished form for direct color photography in our own studio. We gladly make her services available to canners interested in this new and powerful sales medium.

Here's a label that moves right off the shelf, bangs the cash register, and lands in the kitchen.

Why? How? Because it appeals directly to the housewife-shopper! It's the new Schmidt *Recipe* Label in full, natural color...showing your product in actual use with an original recipe.

Let us tell you about it...show you some pictures. Easily adapted to your present design. Schmidt Recipe Labels.

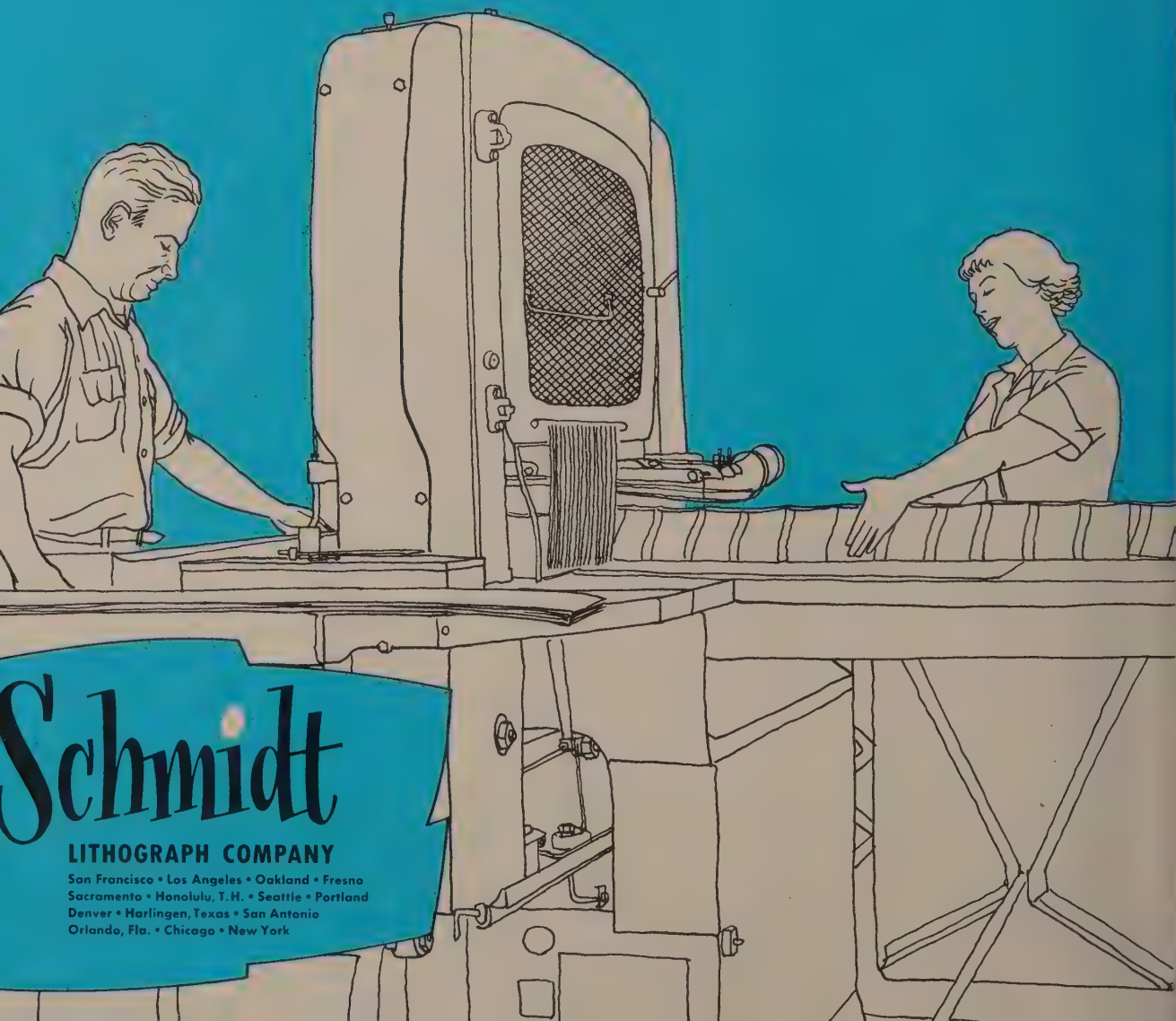
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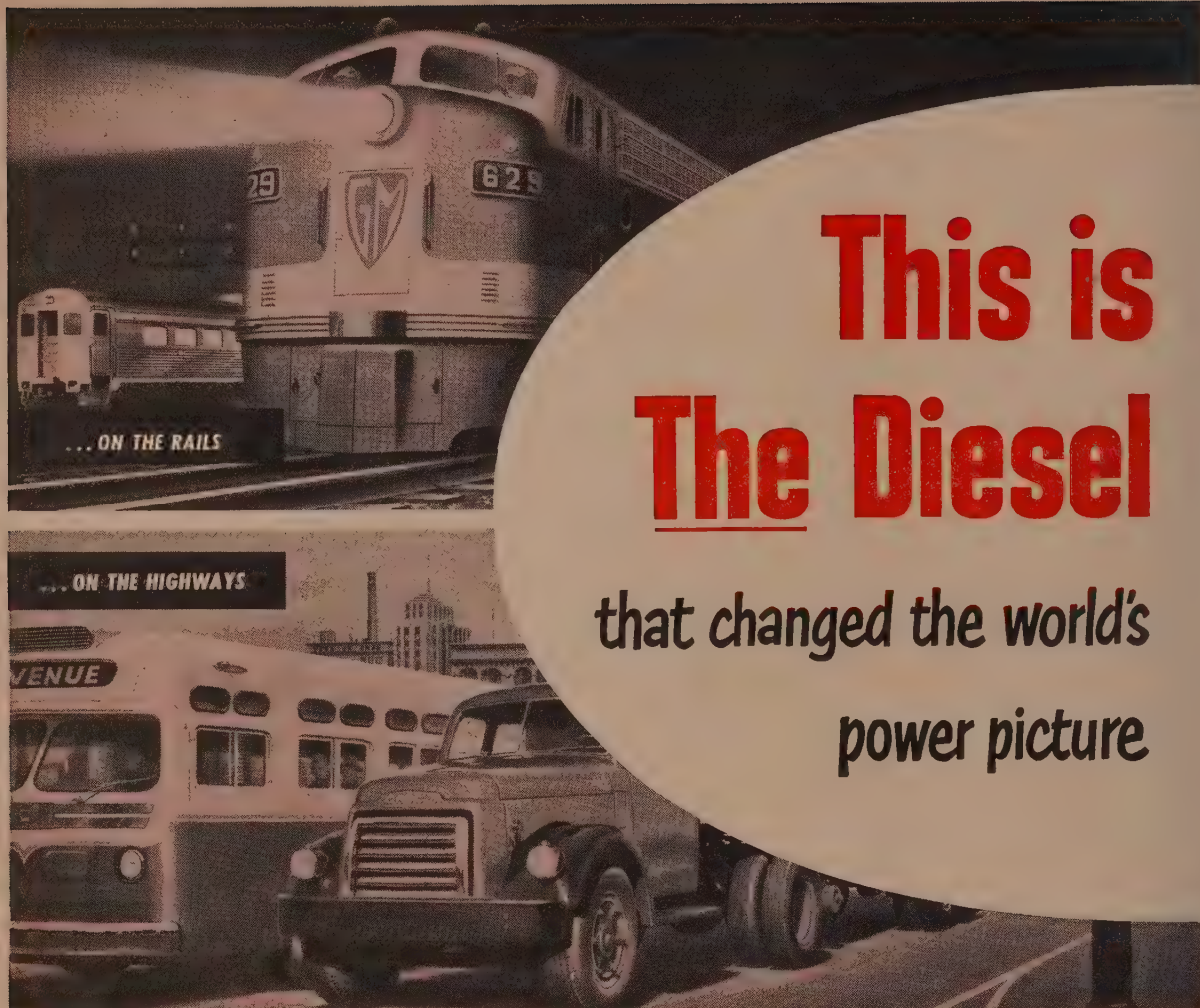
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ALL VARIETIES
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SALMON**

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HAWAIIAN TUNA





This is The Diesel

that changed the world's
power picture

ONE DIESEL—and one alone—blazed a trail which has won world-wide recognition for the oil-burning engine as the most economical source of smooth, dependable, agile power for locomotives, trucks, buses, marine and other mobile uses.

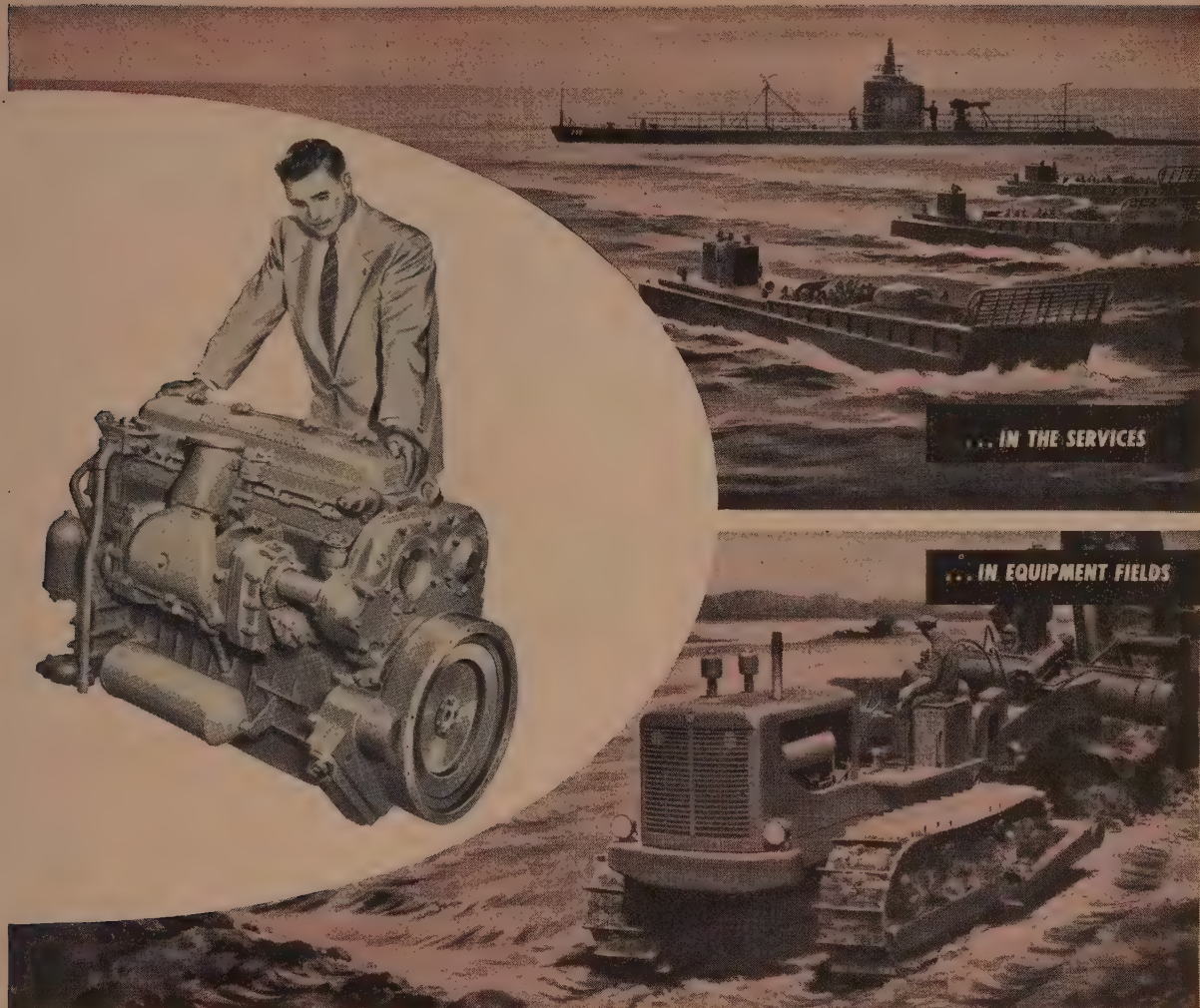
It is the General Motors Diesel engine, one size of which now drives most of America's crack passenger and freight trains. Another powers many of the Navy's submarines and other vessels.

And a third—the GM Series 71 engine—is the most widely used of all, totaling 46,000,000 horsepower. *It has surmounted the exacting conditions of War and met the economic requirements of Peace.* It has brought the same efficiency to a wide range of jobs; including many where Diesel power was never usable before.

That is because the "71," like all GM Diesels, is a two-cycle engine. Two-cycle means it produces power with every piston downstroke—in contrast to most other Diesels that generate power only on every second downstroke.

Equally important, GM Diesels have a direct jet-injection system that feeds fuel to cylinders in exactly metered charges—insuring better combustion and eliminating troublesome high-pressure fuel lines.

These basic differences make GM Diesels far more compact and much lighter than other Diesels of equal horsepower—without sacrificing ruggedness. These engines accelerate faster, are unmatched for smoothness, start quickly and are clean-burning.



"Your Key to  Power Economy"

Today, GM Series 71 Diesel engines are taking the place of gasoline engines on many types of power jobs — of steam engines on land and sea — even of other Diesels because twelve years' experience has proved they are so dependable, so efficient, so economical.

General Motors 2-cycle Series 71 engines provide Diesel power at its best — *Diesel brawn without the bulk.*

Hear Henry J. Taylor on the air every MONDAY evening over the ABC Network, coast to coast.

Only GM Diesels provide all these advantages

- Smaller size, less weight per horsepower
- Two-cycle smoothness, power on every downstroke
- Quick starting, on its own fuel
- Unit injectors—no high-pressure fuel lines
- Rapid acceleration • Cleaner-burning
- Better high-altitude performance
- Easy accessibility

DETROIT DIESEL ENGINE DIVISION

SINGLE ENGINES . . . Up to 275 H.P.

DETROIT 28, MICHIGAN

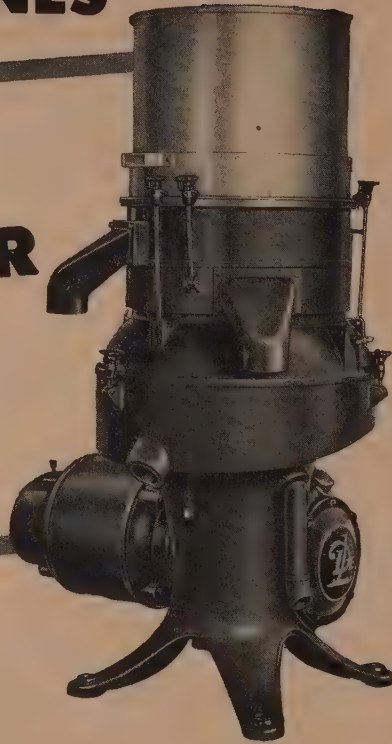
MULTIPLE UNITS . . . Up to 800 H.P.

GENERAL MOTORS



DE LAVAL MACHINES...

**FOR EVERY
STICK-WATER
RECOVERY
PROCESS**



De Laval centrifugal machines are used extensively for removal of oil and meal from stick-water prior to evaporation to fish solubles. De Laval "Nozzle-Matic" Separators and meal recovery centrifuges make possible a better product by removal of excess oil and meal from the stick-water.

The processing of fish solubles from stick-water, while a comparatively new thing, has already proved to be a profitable means of converting a one-time nuisance into money. Moreover, as more and more laws are passed against the dumping of stick-water, recovery of by-products by De Laval centrifugals solves the problem of stick-water putrefaction and pollution.

- Write for additional information on how De Laval machines can be used in the fish processing industry, whether for stick-water work or for reduction processes.

DE LAVAL

Fish Oil Separators

THE DE LAVAL SEPARATOR COMPANY
165 Broadway, New York 6 427 Randolph St., Chicago 6
DE LAVAL PACIFIC CO., 61 Beale St., San Francisco 5
THE DE LAVAL COMPANY, Limited, Peterborough, Ont.



99 out of 100 That's good shooting in any man's language. Records like that, in bluerock breaking or anything else, don't just happen. Experience and training play a large part.

Just recently, when Union Pacific hung up a record of 99.45% on-time delivery of perishable shipments, a major share of the credit was due the army of employees whose long experience, proper training and cooperative spirit made possible such a remarkable performance.

Naturally, Union Pacific wants its patrons to think well of the railroad. It is equally interested in knowing that its employees can truthfully say "The U. P. is a great railroad and we're going to keep it that way."

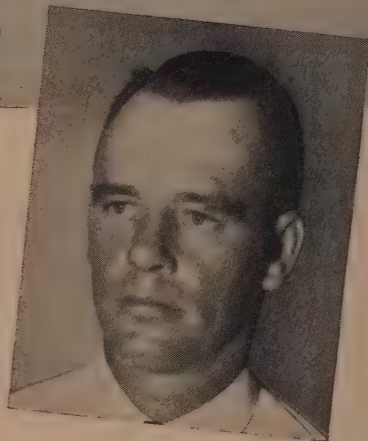


BE SPECIFIC: *Ship* UNION PACIFIC

NYLOCK* (specially processed 100% NYLON Netting)

PASSES EVERY KNOWN TEST!

MR. R. B. DAVIS of Davis Seafoods, Cedar Key, Florida, writes us:



"We have given these nets every known test and they have passed them all. Naturally, mud and slime are a net's worst enemies. That's why we have to lime and treat flax and cotton continuously to prevent rot. There is quite a saving in NYLOCK as no preservatives are needed to keep them from rotting. Also, it doesn't take as many lbs. to hang a net, for NYLOCK is much lighter when dry and about 94% lighter when in the water. That is one big reason for its catching ability.

We have 12 of these nets fishing and will continue to use them."

YES—Mr. Davis prefers Nylock and you will too...

NO OTHER NETTING GIVES YOU ALL THESE ADVANTAGES:

Bigger Catch: Fishermen report that NYLOCK nets from 3 to 12 times as many fish.

No Drying: NYLOCK nets can be kept in continuous service—one net does the work of three.

No Preservatives: Saves you time, money, materials.

Stronger, Longer-Wearing: Unaffected by mildew, fungus growths, oil or gasoline.

Lighter in Weight: Takes less man power and less horse power to haul NYLOCK nets.

Specially Treated For Sunlight Resistance

For further information . . . write, wire or phone one of the following manufacturers who use NYLOCK Nylon exclusively for all of their Nylon Fish Netting:

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THE FISH NET & TWINE CO.—310-312 Bergen Ave., Jersey City, N. J.

MOODUS NET & TWINE INC.—Moodus, Connecticut

A. M. STARR NET CO.—East Hampton, Connecticut

JOSEPH F. SHEA, INC., Successor John S. Brooks, East Haddam, Connecticut

Be Sure to Specify NYLOCK When Ordering Your Nylon Netting

Smaller sizes of NYLOCK (#34 #46 and #104) are still in short supply. Larger sizes (#69 #139 #208 #277 #346 and Salmon twine) are available, however. If your supplier cannot meet your requirements, please write direct to Brownell & Company, Moodus, Conn. who will be glad to help you.

MANUFACTURED BY:

The **HEMINWAY & BARTLETT Mfg. Co.**
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SOLE DISTRIBUTORS:

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POWERED BY

Superior

for an extra margin of safety

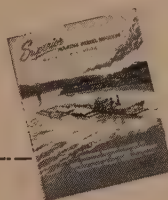
● Sudden emergencies and temporary overloads call for an extra margin of safety. What's more, this margin of safety means longer engine life.

That's why fishermen like Superior Marine Diesels. They've found they can get continuous and trouble-free performance at Superior's rated output. And that they can call on a liberal power reserve whenever they need it.

**SUPERIOR DIESEL DIVISION
THE NATIONAL SUPPLY COMPANY**
Plant and General Sales Office: Springfield, Ohio

**Here are other reasons why
Superior is your best buy...**

1. Fuel Economy
2. Precision Bearings
3. Heavy Rigid Crankshafts
4. Strong Bases and Cylinder Blocks
5. Proved Roller Chain Camshaft Drive
6. Oil Cooled Pistons.



One of our representatives will be glad to show you how these features can help you. Just write and tell us when he can call. Or, if you prefer, send for our fully illustrated 28 page booklet.



***Superior*
DIESELS**

built for marine service

In how many ways does finger-tip gear control pay off?

(See Question 1 in this Packard Marine Engine value quiz)



1. Every Packard Marine Engine is standard-equipped with built-in finger-tip gear control. Two other important Packard maneuverability features are:

- A. 100% reverse.
- B. Sealed and balanced carburetion.
- C. Separate oil for engine and reverse gear.

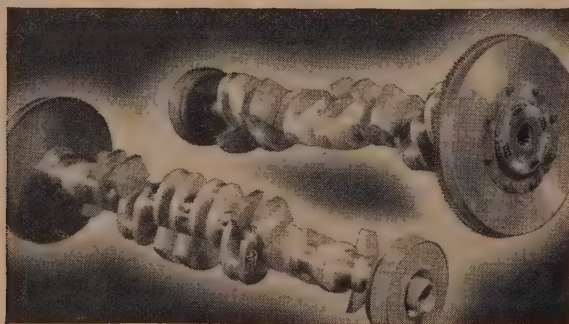
Answers A and B are right for maneuverability. (Packard's separate oil supply is important for trouble-free dependability and long life.)



2. Which Packard feature listed below is one of the secrets behind the amazing smoothness of the Packard Marine Eight?

- A. 100% power in reverse.
- B. Highly balanced crankshaft.
- C. Finger-tip gear control.

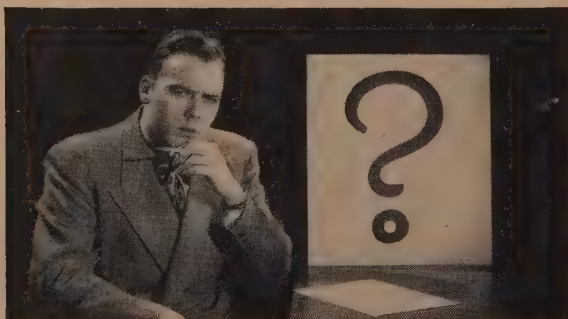
Answer B is correct. (The other two are important maneuverability features—standard equipment on both the 150-HP Marine Eight and the 100-HP Marine Six.)



3. In every Packard Marine Engine, "crankshaft whip" is reduced to the vanishing point because Packard offers you:

- A. Flywheel-type damper.
- B. Flywheel located aft.
- C. Vacuum-type crankcase ventilation.

Answers A and B are correct. (Vacuum-type crankcase ventilation is an important Packard long-life feature. It eliminates corrosive fumes, which eat into the vital parts of old-fashioned gasoline engines.)



4. Where can a smart buyer get additional details and specifications on Packard Marine Engines?

- A. Packard Marine Engine dealer.
- B. Packard Marine Engine Department.
- C. Ask the man who owns one.

Yes, all three answers are right. All three can demonstrate why new boats *deserve* Packard power—and old boats *need* it!

PACKARD MARINE ENGINE DIVISION, DEPT. S
PACKARD MOTOR CAR CO., DETROIT 32, MICH.

ASK THE MAN WHO OWNS ONE



**"BEST THING
I EVER HAD,"**

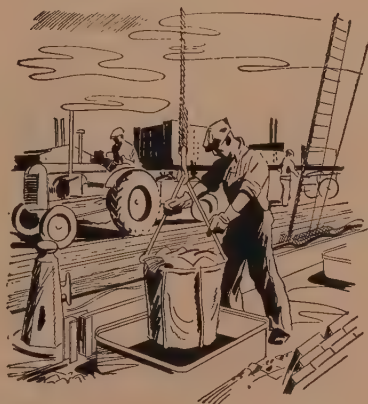


beam trawler captain reports about **Sperry Loran**

► CAPTAIN ALLAN J. FOOTE of the *William J. O'Brien* formerly had to find his fishing spots by dead reckoning in foggy weather. Now Sperry Loran finds them for him with pinpoint accuracy. "Best thing I ever had," he says.

► "With Loran I can fish within $\frac{3}{4}$ of a mile with a 5-mile tide. I'm sure of one thing: if you threw a baseball over the side in Boston Harbor and allowed for tide, I could pick it up by navigating with Loran. I don't know how I ever fished without it."

► On one trip to Cultivator Shoal off Georges Bank 200 miles out of



Boston, Captain Foote and his crew traveled four days and fished five more without once seeing the sun. Yet Sperry Loran kept the 125-foot

trawler on a spot 25 fathoms deep, $\frac{1}{8}$ mile wide.

► "It was thick of fog," remarks Captain Foote, "but we stayed on our Loran fix and got our whole catch (104,460 lbs.) from there. We stocked \$8,741.15. And it was caught by that Loran."

► Captain Foote—or the skipper of any of the six Loran-equipped O'Brien beam trawlers—knows his destination before leaving port. Then Sperry Loran leads him there—and keeps him there until the rich haul is aboard. With Loran, he can return again and again to that profitable spot.

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COMPASSES FOR FISHERMEN



5" Fisherman model "Constellation"

At left. Price includes yoke, brackets and spheres, and top lighting—either red filter or adjustable polaroid lens . . .

complete \$97.50

"CONSTELLATION," designed specifically for fishermen's use, is manufactured by Wilfrid O. White & Sons, makers of fine compasses. Every effort has been exerted to make the "Constellation" the steadiest magnetic direction-indicating device available. A wide range of models and mountings are available, including the 5" model pictured above, complete at \$97.50.

The "Constellation" has top hemisphere of glass, spun brass bowl, and expansion chamber. Inside gimbal ring supports a central disk on which are mounted the four lubber lines and jewel post. Under conditions of extreme roll or acceleration, compass card and magnets move as one through a special liquid. Card is of new aluminum, non-warping. Top lighting—either red filter or adjustable polaroid lens—permits greater eye adaptation for night visibility. "Constellation" can be quickly and easily serviced by any instrument shop.

"Your Guiding Star," 8 pages of diagrams, charts, and photos of fourteen models and styles of mountings, will be sent to you, free upon request. Write or call any of the seven affiliated stores listed on the map at the right for your copy.

"Constellation" compasses and other quality lines are available through the seven affiliated firms listed on the map at the right, including:

LUBRIPLATE marine lubricants
HALF-MILE and MILE-RAY searchlights
PLYMOUTH cordage
BARBOUR'S linen and GOLD MEDAL cotton netting
EDWARDS wire fish trap netting and crab trap wire
TAYLOR and AIRGUIDE barometers
GOODRICH Cutless rubber bearings
WOOLSEY and DEVOE & RAYNOLDS paints, varnishes
FEDERAL propellers . . . CHAMPION spark plugs
JABSCO and OBERDORFER pumps
UNIVERSAL water-cooled lighting plants
GALLEY GAL and SKIPPY stoves
PYRENE and CO-2 fire extinguishers



BULL MARKET MANIFEST IN FISH

Firming demand was manifest in virtually all markets for Pacific fish in the late summer period preceding presstime of this issue of PF.

A seller's market was proclaimed in every category save fish oil and meal.

Five general reasons can be ascribed for the sudden summer swing into a bull market for food fish:

1. War-scare buying all along the line from the wholesaler to the housewife.
2. Basic inflation, emphasized by accelerated federal spending.
3. Fantastic meat prices, which made peak prices for fish seem cheap in comparison.
4. Scant-to-moderate supply in some items, plus uncertainty as to those still in production.
5. Tapering-down of imports, evidently as result of buying activities of world-traders.

Salmon--

Alaska Reds, in definitely short supply, opened at \$29 and found active movement at that figure. By mid-August, before the Southeast Alaska Pink fishing opened, Pinks had sold in Seattle at \$24.

The Puget Sound Sockeye and Alaska Pink packs were still to be made. Prices were unnamed.

Buying competition became so keen on the Columbia River that packers voluntarily advanced the buying price of early Chinooks from 20.5c to 25c, and made the price retroactive from Aug. 10 to the first of the season.

Halibut--

Although the 1950 pack of frozen halibut was the largest in history, and put up at the highest cost, summer movement was unprecedented, with buyers reporting that the goods were going into consumption readily as a high-class substitute for sky-priced meats.

Oysters--

Pacific canned oysters were advanced \$2 per case by the principal producer in the late summer, and the entire visible supply was sold out in a matter of hours.

Tuna--

Despite the fact that the California pack to mid-August was far ahead of any previous year to that time, the market demand had firmed up and sales were again running ahead of the ticker.

Albacore buying prices were raised voluntarily to \$400 per ton as Japanese import offerings eased.

Sardines--

August opening of the new season in California found no carryover of any sort, and interest in new pack sharp as a tack. Production to presstime had been nominal.

There was no Pacific Northwest pilchard production, and British Columbia pilchard scouts found nothing.

Crab--

Despite the fact that canned crab advanced to \$25 per case, none was being canned in the late summer, as the \$1.15-\$1.35 per lb. price on fresh-picked crabmeat made it economically impossible to can crab. It takes 23 lbs. of crabmeat for a case of crab. In the fresh market that amount of crabmeat was commanding about \$27.

For Further Details -- FOOD FISH MARKETING, Page 83



California fish cannerymen gathered at the ground-breaking ceremony of the American Can Co.'s new plant at Wilmington. Reading from the left: H. C. (Herb) Davis, Terminal Islands Sea Foods, Ltd.; W. Gillis, Van Camp SeaFood Company; C. W. (Steve) Roberts, vice president, American Can Company, in charge of the Pacific Division; Lee Irish, Coast Fishing Company; Joe Bogdanovich, French Sardine Company; L. W. (Larry) Holland, Southern California Fish Corporation; H. Christian, Southern California Fish Corporation; J. Gruil, Golden State Packing Company; Lieut. Gov. Goodwin J. Knight; R. Gruif, Golden State Packing Company; and Vincent Thomas, San Pedro State assemblyman.

Tuna Operations in High Gear Again As Yield Keeps Pace With New Demand

Southern California's tuna-packing industry was 1,250,000 cases ahead of the previous year to the end of July, represented by an increase of 21,303 tons of raw fish delivered at the combined receiving ports of San Diego and Los Angeles.

The unofficial figure of gross production as August got under way was 4,615,723, against 3,356,679 cases for the previous year. Raw fish flumed was 103,795 tons, against 82,492 tons.

While predictions are always dangerous in the tuna industry, it was presumed in Southern California that last year's total production would be reached by the end of September. Last year August produced 737,575 cases; September 878,784 cases.

Thus, at the end of September this year, provided the same pace is maintained, the industry at San Diego and San Pedro will have reached approximately 6,300,000 against the total for 1949, 6,400,140 cases.

July was one of the greatest tonnage months in history, 25,028 tons landed and 1,197,217 cases packed. Several reasons were attributed: the clipper fleet was practically unrestricted in sailings; purse seine

fleet had done much better this year; the early Albacore run was the largest ever known.

A glance at the Albacore picture: At the end of July Albacore was 2,500 tons ahead of 1949—9,907 tons against 7,412 tons. That could easily change, however, because during August the Longfin run showed signs of weakening, whereas during the latter part of 1949 Albacore tonnage continued strong, 10,359 tons being unloaded to the end of September, and important tonnage after that. Raw price for Albacore advanced to \$400 per ton from \$375, on August 3.

Rough weather during the latter part of July and early August from Southern California to Guadalupe Island hampered Albacore operations and kept many of the 500 operating vessels at San Diego in port.

Fishing was improving for the long-range clipper fleet in August, with large catches being made of excellent fish from Mexico's mainland to Costa Rica, and fair yields at the Galapagos Islands. Purse seining was tapering off, although in early August some 35 net vessels were operating in Mexican waters and there had been a good yield of Skip-

jack for large seiners at the Galapagos Islands.

Offsetting the large tonnage however, was the extremely heavy buying in June and particularly during July. Demand, although in lesser volume, continued in August, with the result packers were basically in the same position when fall began, as they would have been had the pack merely equalled last year.

D. P. Loker Manages High Seas Tuna Co.

Don P. Loker, public relation official for French Sardine Company, Terminal Island, was named secretary and general manager of High Seas Tuna Packing Company, San Diego, a subsidiary, last month. The appointment was made by Joseph J. Bogdanovich, French Sardine president, following the resignation of Earl M. Neilsen, general manager for many years.

Mr. Loker is well known for his interest and work in connection with fishery industry problems. Recently he was a member of a SCAP fishery advisory committee sent to Japan to study the administration of that country's fisheries.

West and Central Alaska Salmon Packs are Scant

Salmon production in Alaska to the opening of the Southeast Alaska fishery followed closely the pattern of the previous year.

With Western and Central Alaska operations closed, so far as any production of importance was concerned, the territory's yield at the Southeast Alaska opening showed amazingly little departure from 1949.

Moreover, this similarity extended throughout the several species. There was a moderate increase in the yield of Reds to that date, and this accounted for virtually all of the 100,000-scant cases by which the 1950 pack was running ahead of the season before.

Closing of the Central Alaska region found Prince William Sound and Kodiak productions particularly disappointing among the major divisions.

Consistent Cook Inlet held close to the established pattern, and the South Peninsula yield was of course substantially ahead as result of the heavy early-season fishing.

At presstime nothing could be written regarding the Southeast Alaska fishing which could be counted on to hold up under later developments.

Efforts to secure early opening of the northern portion of the region fell flat when no convincing showing could be made that there was a general early run of salmon.

The exception to this was in the case of a substantial pre-season showing of fine Chums in the Chatham Strait section, notably Tenakee; but official ears were deaf to talk of opening.

Prince William Sound packers felt that delay in the opening of the season until July 24, a full fortnight beyond what has been customary practice in the past, missed an early run of Pinks from which a moderate pack might have been taken without damage.

One of the leading operators in that district rounded off Prince William Sound production — not counting Copper River — in an estimate as follows:

Operation	Full Cases
New England-Parks	48,000
San Juan-Port Ashton	47,000
Copper River Packing Co.	30,000
Ellamar Packing Co.	18,000
Whiz-Halferty	17,500
P. A. F. Floater Neva	7,000
Dayville	4,000
Gillesen	3,500
Copper River Co-op	2,500
Total	178,000

Extraordinary Promise Marks Early B. C. Season

As the British Columbia salmon season advanced optimism strengthened. Records of the past decade showed no year had started with such promise as 1950.

At the week ending August 5 the total pack of all salmon in British Columbia was 550,319½ cases, a gain of more than 161,000 cases in a week. In the past 10 years, the nearest to that total was in 1945, when the pack at August 4 was 507,266 cases. There was a pack of 499,330 cases at August 7, 1948, and in 1941 of 473,092 cases.

Although the Sockeye catch in the Skeena district was disappointing, the Sockeye picture generally was favorable, with an early total well ahead of that of any recent year to presstime. A good many Sockeyes

from overflowing canneries up the coast were shipped to the Fraser River plant for packing

Actually, the concentration of packing facilities at certain points such as the mouth of the Fraser has made the traditional weekly pack bulletins of the Fisheries Department by districts rather misleading and uninformative as the districts credited with the pack do not always correspond with the districts where the catch was made.

The early pack of Pinks also was heavy, early reports making it slightly better than the total for the corresponding date in the last cycle year and about five times what it was in the years 1946 and 1947. Only in Whale Channel was the catch of Pinks less than anticipated.

"Pacific Queen," Bristol Bay Freezer, Does Well

The freezer ship *Pacific Queen* secured a good pack of salmon on Bristol Bay this season, including both Reds and Kings. The Red pack was understood to exceed 100,000 fish, aggregating about 660,000 lbs., and Kings total about 180,000 lbs.

Capt. John Joncich brought the vessel down to Seattle before the end of July and the fish was custom canned immediately by Washington Fish & Oyster Co.

Pacific Queen Fisheries, Inc., operating the vessel is said to have gotten nearly 18,000 cases of 48 halves, which were marketed by McGovern & McGovern, Hamlin-Lahlferty Co. and C. F. Buelow Co.

The Kings were sold frozen, at a price said to be in the neighborhood of 35c per lb.

Del Mar Packing Plant Hard Hit By Fire

The modern plant of the Del Mar Canning Co., at Flavel, Ore., on the Columbia River west of Astoria, suffered heavily by fire late in July. The reduction plant, condensed fish solubles installation, fish house and fillet department, as well as the cold storage, were destroyed.

The cannery, two warehouses, and the office building were saved from the fire.

The company's reduction plant had been in operation on offal, and it is believed that the fire started in the reduction division, which was separated from the cannery and cold storage divisions by a wide roadway.

(The Del Mar establishment, which was one of the newest and most versatile on the Pacific Coast, was fully described in *PACIFIC FISHERMAN* for October, 1948.)

Edward David, president of the company, declared that the total investment in the plant was around \$750,000. He estimated loss at more than 50%, partly covered by insurance.

Pilchards Are Missing Along the North Coast

Complete suspension of pilchard operations in Pacific Northwest waters occurred during the current summer. No plants were active in this field in Oregon and Washington.

Canadian operators had several scout boats out in July and early August, looking for fish off Washington and Vancouver Island, but without finding anything.

"Big Year" Sockeye Run Develops Satisfactorily in Early Season

Satisfactory development along anticipated lines marked the Puget Sound-Fraser River Sockeye run to presstime for this issue. However, that editorial milestone was passed before sufficient Sockeye data was available to form a comprehensive opinion as to the season's aggregate yield.

Fishermen—particularly in British Columbia—and the Sockeye Commission staff members were well pleased with the early returns, declaring that if the run continued to develop through according to the pattern of the early weeks the 1950 season would be one of the great ones in Sockeye history.

Canadian fishing opened coincidentally with that on the American side this season, and during the early part of the season the Canadians took about 30% more fish than the Americans.

Both fleets, however, in the early part of the season day after day took consistently more fish than they had recorded in even days of the last four years. As a matter of fact, *the lowest day's catch in that early period of the 1950 season was better than the best in the equivalent period during the four previous years.*

Early Signs Augur Well

Most of the early catch of Fraser Sockeyes was from the Birkenhead and Stellako races. The Adams River run, which was scheduled to be the dominant element in this year's fishing, was not expected by the biologists until after presstime for this issue.

Surprising numbers of "jack" Sockeyes were noted in the early August catches. These male fish usually mature a year ahead of their normal cycle, and large numbers of such "jacks"—properly "grilse"—are usually counted to be a forecast of a good run the following years. (Incidentally, fishermen in 1949 reported that large numbers of these precocious Sockeyes were observed through the season.)

Gear Concentration Heavy

There is an extraordinary concentration of gear in the Puget Sound-Strait of Georgia waters through

which the Fraser Sockeyes pass. Anticipation of a good run in this dominant year of the cycle has brought unprecedented numbers of vessels into the fishery on both sides of the boundary.

Canadian gillnet fishermen hoped to make a good showing this year because, for the first time in eight years, the so-called "Sloan line" would not be moved. This means that the mouth of the Fraser will be open exclusively to the gillnetters, as was recommended by Chief Jus-

tice Gordon Sloan in his report in 1942. In intervening years, at first in order to insure an adequate pack for the United Kingdom during the war, orders-in-council were passed at Ottawa marking the boundaries and opening up a wedge-shaped area of the Gulf of Georgia for purse seiners.

The gillnetters claimed that this provision enabled the purse seiners "to skim the cream from the crop" before the Sockeyes reached the waters open to gillnetters.

Mid-Season Retroactive Tilt Given Columbia River Price

A combination of circumstances involving *scarcity, competition, quality and demand* in August produced a voluntary advance of major proportions in the price paid Columbia River fishermen for Chinooks.

Moreover, the advance was made *retroactive to the start of the season.*

This striking shift in pricing and cost become effective Aug. 10, the date when the early season pricing involved came to a close.

The 17½¢ price which was to go into effect at that time was advanced to the 20½¢ which had prevailed prior to the rise.

Elaborating the several circumstances which influenced the mark-up in buying prices:

Scarcity—Production of Columbia River Chinooks had been very light all season. Almost coincidental with the increase there was a nice bulge in deliveries, but the rise proved to be a wave of fish, rather than a tide, and the catch dropped off sharply after a day or so.

Competition—With troll salmon buyers at Ilwaco and other points close to the grounds paying above 40¢ per lb. for dressed troll Chinooks, and up to about 30¢ for dress troll Silvers, river buyers evidently felt impelled by competition to lift their buying figures for inside salmon.

Quality—The over-all quality of the Columbia River Chinooks this year is said to be better than had been anticipated when prices were set at the start of the season. The fish have been scarce, but definitely desirable in quality.

Demand—The war-buying wave, plus below-expectations supply of salmon of the better grades, put the scant stocks of Columbia River goods under the keenest kind of demand, which whittled away inventories rapidly.

With the increase in buying price, most Columbia River packers withdrew from the market temporarily until costs could be calculated and the results of the Puget Sound Sockeye fishing more closely appraised.

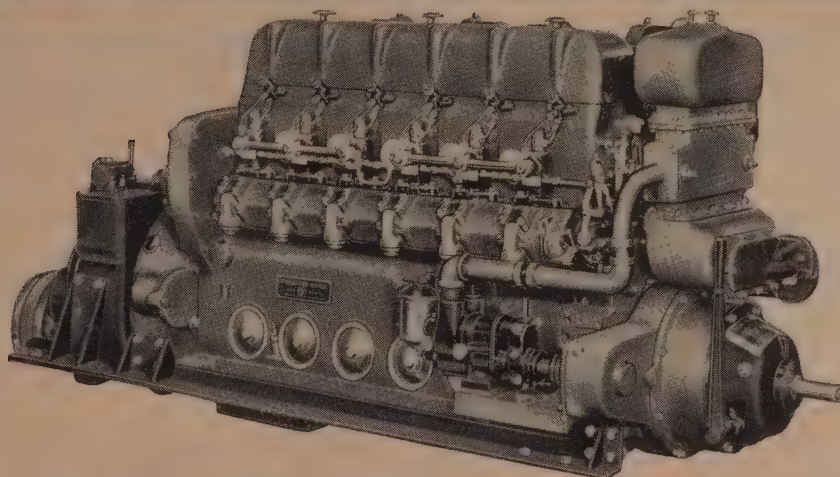
Captain Lathrop Dies

Although Capt. Austin E. Lathrop had been connected with the salmon industry only once, and that for but a short time, as Alaska's leading businessman he was widely known in the salmon business and other fisheries of the territory; and his accidental death late in July brought a sense of loss to many men in the fisheries.

Capt. Lathrop was 83, and was killed by a loaded coal car at his Healy River Coal Co. mine in Alaska.

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Waiting to unload at the hoppers of the Monterey Fish Products plant, were three of the first boats to bring sardines into Monterey during the 1950-51 sardine season. Left to right they are: *Nancy Rose*, San Pedro; *Sea Traveler*, Monterey, unloading; and *American Boy*, San Pedro.

Monterey Sardine Packing Delayed by Labor Dispute

California's 1950-51 sardine finally got off to a limited start Aug. 4 when some 40 tons were landed by small boats at the Moss Landing plant of Santa Cruz Canning Co.

The fish were caught in the bay, and were of good size, around 12", according to Joe Olivieri, president and general manager of the plant.

Previously the Moss Landing and San Francisco sardine plant workers had won a straight "over-the-board" pay increase of 10c per hour and boat owners had signed contracts with plant owners.

In San Francisco the first catch of sardines was brought in Aug. 7 by *Salvatore Piazza*, Sal Piazza, skipper, to the F. E. Booth Co., Inc., plant—37 tons. The other boats

fishing out of San Francisco accounted for some 500 tons that night, and fish were being caught between the Pigeon Pt. and Montara, an area in which they hadn't been seen for a number of years.

In Monterey only one plant, Monterey Fish Products Co. No. 3, was operating. All the other plants were strike-bound through early August. There was no argument about the price of fish, as members of the Monterey Purse Seine Association, the boat owners' group, Horace Mercurio, manager, had signed with individual cannery owners some time previously for \$35 a ton.

The first break in Monterey's week-long tie-up came when Monterey Fish Products Co. signed a

contract for the 1950-51 season with the AFL Fish Cannery Workers Union. The contract was reported to include a wage increase of 13c across the board.

Meantime, negotiations between committees from the union and the Monterey Fish Processors Association limped along with little progress reported. Negotiations between the processors and the union were deadlocked on the question of seniority rights to overtime pay. No discussion of wage increases had been held.

With the signing of the contract by Frank Lucido, president, Monterey Fish Products Co., and the cannery workers union, boats immediately went fishing the night of Aug. 8, and about 100 tons were brought in to the plant by *Santa Rosa*, Sal Lucido, skipper (the first boat in with 22 tons); *Nancy Rose*, San Pedro; *American Boy*, Chris Gradis, skipper; and *Sea Traveler*, Joe Crivello, skipper, Monterey.

New California Tuna Packing Plant Programmed

Plans to construct a new \$750,000 tuna cannery at San Diego were announced last month by officials of the California Tuna Packing Corporation, Earl M. Nielsen, president; William L. Robinson, vice-president. Both officials, among the most experienced in Southern California tuna packing, recently resigned as general manager and assistant manager respectively from High Seas Tuna Packing Company, a subsidiary of French Sardine Company.

The new plant is to be constructed on the site of the former Lynch Shipbuilding Company, and production is expected to start early in 1951, with a starting annual capacity of 350,000 cases.

Mr. Nielsen said major financing of the new plant will be by Los An-

geles associates. The building site is now under lease to National Tuna Clippers, Inc., a subdivision of National Steel & Shipbuilding Corporation.

Brand names for the canned tuna are to be announced at a later date, Mr. Nielsen said. One of the innovations is to be a new can size. It will be recalled that he developed and patented the aluminum can for fish products some years ago. The new cannery head has been associated with fish packing for 30 years and his associate in the new venture traces his history back to 1917. Mr. Robinson was formerly head of Cal-Pack's tuna cannery at San Diego, which was closed during World War II, when the navy stripped the plant of all of its tuna clipper fleet. He joined Cal-Pack in 1926; and became associated with Mr. Nielsen at High Seas in 1943.

Samoan Tuna Packing Plant Suspends Operations

Joe Hickey, formerly superintendent of the Del Mar Packing Co. at Monterey and Warrenton, Ore., and lately superintendent of the Island Packers plant, Pago Pago, Samoa, will soon be seeing his friends in Monterey. A letter to his brother Maurice Hickey at the San Xavier Fish Packing Co., Monterey, said that Joe and his family were heading for the States since the Island Packers plant has suspended operations for the time being.

Anthony Nuovo, captain of the *Sherman Rose*, Monterey, died aboard his vessel off Point Loma, San Diego, recently victim of a heart attack. He was 63 years old. The body was returned to Monterey aboard the vessel.

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TRANSPORTATION



LOGGING



MINING



PETROLEUM



MANUFACTURING



MARINE



CONSTRUCTION



Jose Luis Cardona-Cooper of Costa Rica, chairman of the Inter-American Tropical Tuna Commission, addressing the meeting of the Pacific Marine Fisheries Commission at Bellingham, Wash., in July. Next to him, and reading to the left: Richard Croker, chief, California Bureau of Marine Fisheries; Alvin Anderson, Washington director of fisheries and chairman of the commission; Robert Jones, Oregon commissioner; Arnie J. Suomela, Oregon master fish warden; Donald Ellis, Oregon commissioner.

No Over-Fishing of Albacore Evident

There is nothing in the present biological evidence to indicate over-fishing of the Albacore runs along the Pacific Coast; and

Coastwide adoption of the California 9-lb. minimum size limit for Albacore would have no effect conservation-wise.

Hearing these two statements made and repeated by biologists from Oregon and Washington, the Pacific Marine Fisheries Commission, meeting at Bellingham recently, took no action on the proposal of the Columbia River Salmon and Tuna Packers Association that the 9-lb. limit prevailing in California be extended over the entire coast.

Floyd Wright of the Columbia River Packers Association, Inc., presented the case for the limit, and said it was advanced primarily as an economic measure, upon which the association had decided as a means of avoiding economic waste in the taking of small fish.

Bert Johnston, manager of the Fishermen's Cooperative Association, representing a large group of Pacific Northwest Albacore fishermen, said the F.C.A. did not think that 9-lb. fish should be taken, inasmuch as fish of that size are not profitable, and it was the belief of the cooperative that unprofitable fish should not be sold, but should be given a chance to grow.

Harold E. Lokken, manager of the

Fishing Vessel Owners Association, said the Pacific Marine Fisheries Commission should consider seriously whether or not it should take action which was primarily economic. He said the halibut fleet was divided on the subject, but that the feeling was strong that such a minimum limit would need effective enforcement, which cannot be had at present.

Replying to a question, Joseph Ellson, in charge of the U. S. Fish and Wildlife Service exploratory work with the vessel *John N. Cobb*, said that her work had indicated that about two-thirds of the Albacore taken by jigs could be tagged and released in condition such that survival could be expected.

Dr. J. L. Hart, in charge of the Pacific Biological Station, Nanaimo, said his staff had found some evidence—although not conclusive—indicating that Albacore caught along the coast of North America are a different population from that which supports the Japanese fishery.

"At least we think we have evidence that the two stocks do not mingle freely," Dr. Hart said. He explained that the Pacific Biological Station had been trying to "age" Canadian-caught Albacore by count of the ring in the vertebrae, although "we haven't proved that the rings represent years."

This study has been supplemented

by similar research on the ring-count of vertebrae from Japanese frozen Albacore shipped to this coast for canning.

He has found that *American and Japanese Albacore of identical size tend to have different numbers of rings in their vertebrae.*

Fishermen's Fiesta Fixed For Sept. 24

Fishermen's Fiesta, annual celebration of the commercial fisheries at Los Angeles harbor, is scheduled for Sunday, September 24. John Real, manager, Fishermen's Cooperative Association, and Nick Trani, secretary, Federated Boat Owners, are co-chairmen of the colorful fishing vessel parade, highlight of the event which is sponsored by the San Pedro Chamber of Commerce.

Highlights this year, in addition to the 100-vessel purse seiner parade, will be the blessing of the fleet and formal dedication of the new municipal fish markets.

Horace Mercurio, manager of the Monterey Purse Seine Association, boat owners group, is a mighty proud man these days. Last month he was a grandfather for the first time. His daughter, Mrs. Frank DiMaggio, presented her husband with a girl. The infant has been christened Constance Rose. Frank is a son of Joe DiMaggio, skipper of the seiner *Sea Traveler*, and fishes with his father on that ship.

American Nations Make a Start with Research Riddles of Pacific Tunas

Enthusiasm for the research program in eastern Pacific waters by the Inter-American Tropical Tuna commission was amply demonstrated by the Southern California industry July 18, when 100 persons representing every phase of the fishery honored the U. S. and Costa Rican representatives, as well as government officials, July 18 at Coronado.

The occasion was a dinner following the initial meeting of the commission, and at which the preliminary groundwork was done to set up the research program. Packers from all parts of Southern California, fishery and labor organizations, etc. were present. Harold F. Cary, general manager, American Tunaboat Association, was toastmaster.

Present at the opening session, under temporary chairmanship of Dr. W. M. Chapman, special assistant to the Undersecretary, U. S. Department of State were: For Costa Rica, and named chairman, Jose L. Cardona-Cooper. The other commissioner, Virgilio Aguiluz, was absent. For the U. S., Lee Payne, Los Angeles, and Eugene Bennett, San Francisco. Absent, Milton James, assistant director, Fish & Wildlife, Department of Interior.

Los Angeles was designated as temporary headquarters; second meeting of the commission will be held in Costa Rica, unless an emergency meeting is necessary to appoint a director of investigations. The latter, when chosen, will receive a salary of not to exceed \$10,300. Total budget for preliminary work is \$102,225, of which the U. S. will furnish 97½%.

Advisors Are Named

Named as members of an advisory committee from the tuna industry were: John Real, Fishermen's Cooperative Association, San Pedro; T. F. Sandoz, Columbia River Salmon and Tuna Packers Association, Astoria, Ore.; Henry Niemela, Columbia River Fishermen's Protective Union, Astoria, Ore.; James Waugh, president, Cannery Workers Association, San Diego, and Joseph J. Camillo, Lower California Fisheries Association, San Diego. Further appointments will be announced.



Among the large industry turnout for the first meeting of the Inter-American Tropical Tuna Commission at Coronado, were John Real, left, manager of the Fishermen's Cooperative Association, San Pedro, and Capt. Larry Zuanich, skipper of the "Cesare Augusto," who is a member of the Cooperative.

The Tropical Commission's tentative program is: Assemble records pertaining to tropical tuna; conduct preliminary investigations at sea to determine a future program; conduct preliminary tuna bait studies, including establishment of a regional office at Puntareanas, Costa Rica, as soon as possible; analyze oceanography of tuna fisheries areas; and study biology of tropical tuna.

The commission adopted a fiscal year to start July 1, 1950. One of the duties of the body is to gather catch figures, and to some extent the expenses of the research program will be apportioned on the annual tuna catch of the two countries. In the absence of accurate figures the U. S. will pay 97½% of the joint expenses the first year; Costa Rica, 2½%. Last year the total pack of Costa Rica was approximately 20,000 cases, whereas the U. S. packed around 6,000,000 cases.

Tuna Treaty With Mexico Also In Effect

The tuna investigation treaty between the United States and Mexico went into effect in July, just about

the time that the commission appointed under the Costa Rica-United States treaty was holding its first meeting.

Ratifications of the Mexican tuna treaty have been exchanged and designation of the members of the commission is anticipated shortly.

Both tuna treaties authorize the commissions to conduct investigations only. Any regulatory measures which might be indicated by the research would have to be the subject of further negotiations between the several countries concerned.

In addition to studies of the tunas, the treaties authorize research into the "tuna-like" fishes such as bonito, and also the several species of small fish used as bait in fishing for tuna.

Tall Can Sardine Fillers for T. I.

Neptune Process Machinery Co., Monterey, has delivered six automatic packing machines for tall cans to Van Camp Sea Foods, Terminal Island. French Sardine Co., Terminal Island, has ordered nine of the machines.

August Lull in Albacore Dulls North Coast Hopes

Bloom faded from the Albacore outlook along the North Pacific coast as August ran its course, and talk of another bonanza year in tuna died out.

A gale blew in the fleet in the last days of July, and thereafter fishing did not take on the zest which had marked it previously. Weather wasn't blamed, for in general it was flat and favorable for fishing. Boats reported plenty of Albacore showing, and continuous catches of the lighter sort.

Jig fishing prevailed well into August and at presstime there had been few reports of any bait catches of consequence.

Resumption of good fishing could occur at any time, fishermen agreed, and some were betting on it; while others felt that the season would wear itself out without better than average results.

Washington deliveries during July did not reflect very good fishing, being short of the two previous years, as shown in the following table:

Year	Pounds Albacore Landed in Wash.
1950.....	1,600,395
1949.....	1,896,038
1948.....	1,862,243
1947.....	1,267,687
1946.....	359,701
1945.....	2,187,642
1944.....	1,027,003

That these figures might mean much or little is evident from the last on the list, which shows that 1944—the bonanza year—was next to the bottom in July Albacore deliveries in Washington.

It's the August fishing that moulds the Albacore situation in the Pacific Northwest—usually accounting for about half the annual yield—and at presstime it appeared that August was falling down.

North Coast buyers in August fell into line with the Southern California pricing, \$400 per ton becoming the going figure, with reports that a few buyers who were not maintaining buying stations were paying a bit more for fish delivered to their cannery docks.

Walter Conklin Visits Pacific Fishing Ports

Walter Conklin, vice-president of R. J. Ederer Co., Chicago netting manufacturers, with Mrs. Conklin, spent part of the summer on an automobile vacation trip to the Pacific Coast; but, like the proverbial sailor who goes rowing on his shore leave, or the mailman who takes a hiking trip on his vacation, Mr. Conklin called on Ederer dealers in the principal fishing ports from Seattle to San Diego as he cruised the coast and mixed a little business with his sightseeing.

"Reefer King" Pack Fair

The floating freezer *Reefer King*, which worked the Bristol Bay salmon fishery during the summer, came down with a fair pack of Reds. They were processed on a custom basis by Washington Fish & Oyster Co. and were marketed through Whitney & Co. Pack were reported to be about 7,000 cases of halves 48.

Norman Hyland, who joined B.C. Packers, Ltd., in 1936 and has been specializing in trade extension work for the company, has been elected to the board of directors. He was at first engaged in the canned salmon sales division and later became manager of personnel and industrial relations. Douglas Stewart, B.C. manager for Canadian Packers, Ltd., was also elected to the board of B.C. Packers, Ltd.



John X. Johnson Dies From Heart Attack

The salmon canning industry was shocked late in July at the sudden death in Toronto, Ont., of John X. Johnson of P. E. Harris & Co., who succumbed there to a heart attack while on an automobile tour with Mrs. Johnson.

Mr. Johnson had been connected with the Harris company for many years and was a popular and widely known figure throughout the industry.

He is survived by his widow, his father-in-law, P. E. Harris, and several brothers and sisters.

Eight Cannery Inspectors Honored For Service

Eight members of the staff of the Bureau of Cannery Inspection, Department of Public Health, State of California, were given recognition of 25 years of service, at a dinner Sept. 3 at Long Beach. Twenty-five year pins were given to: D. C. Frames, San Jose; R. M. Kubias, supervisor, Los Angeles; R. B. Lundy, Sacramento; Miss B. Mullen, San Francisco; K. Naylor, Los Angeles district; R. A. Scott, supervisor, San Diego; L. T. Smith, supervisor, Terminal Island; and M. Wheeler, supervisor, San Francisco. At the dinner the eight so honored were guests of their fellow workers.

B. C. Packers Sales Run Above \$29 Million

British Columbia Packers, Ltd., set a new marketing record last year, the company's net sales for the 11 months ending March 31, 1950, being \$29,198,295, compared with \$27,333,390 for the previous 12 months, and exceeding all other years as well.

The annual report of the company, issued by President John M. Buchanan, covers 11 months instead of the usual 12 because of a change in termination of the fiscal year.

The company's income from operations was \$1,078,781, compared with \$995,981 the previous year. Percentage of income to net sales was 3.69% for the 11 months ending March 31, 1950, compared with 3.64% during the previous year. Incidentally, the average net sales for the last five financial years has been \$27,071,202, and average percentage of income to net sales, 3.55.

Current assets at March 31 amounted to \$10,113,679 and current liabilities \$5,848,927, giving a working capital of \$4,264,752.

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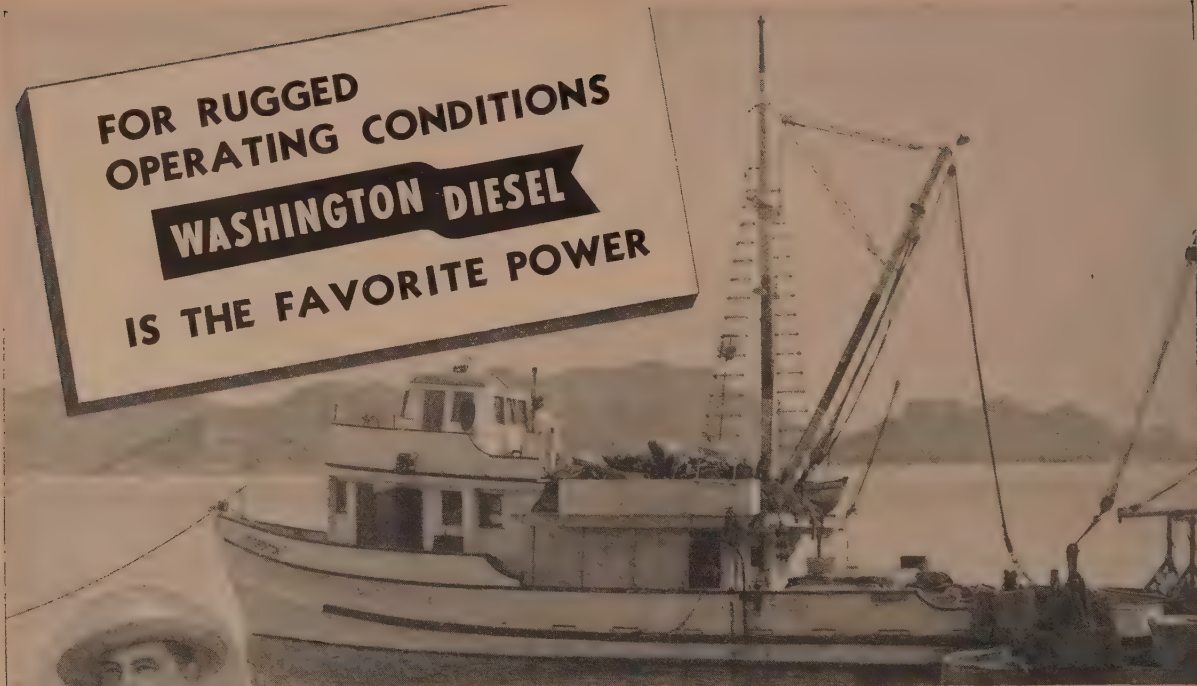
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**FOR RUGGED
OPERATING CONDITIONS
WASHINGTON DIESEL
IS THE FAVORITE POWER**



Capt. Diego Martinez Corona,
president of Congelador de Productos Marinos en Alta Mar, S. A., of Guaymas, Sonora, Mexico.

His brothers-in-law, Eugenio H. Gayou and Louis Gayou are partners in the enterprise, which has played an important part in the development of Mexico's flourishing shrimp industry.

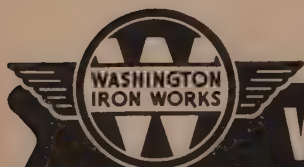
"I certainly am in love with our old Washington diesel," says Captain Corona. And the 135-h.p. Washington which powers the "Admiral Brenton" is old, having seen many years of service before it was installed in this 65-foot freezer ship. The "Admiral Brenton," built at Guaymas in 1946, was the first freezer vessel in the Mexican Pacific shrimp fishery. The company's well known "Crownpack" brand of shrimp is sharp-frozen in 5-lb. cartons on shipboard.

The "Vecino Buena," designed and built by the Tacoma Boat Building Co., has the simplicity and economy long sought by Mexican shrimp trawlers. The hull is welded steel, 54x16x7 ft., with wooden superstructure. Power is a 3-cylinder, 90-h.p. Washington diesel with 110% reverse and dual manual controls. Three other vessels of similar design, now under construction by other builders in Tacoma and San Diego, will also be powered by Washington diesels.

Washington-powered boats already in service in the Mexican shrimp fishery include the "VALENCIA," "FAIRFAX," "EXCELLENT," "MARTHA," and many others.



THE FIRST WASHINGTON DIESEL EVER BUILT IS STILL IN COMMERCIAL OPERATION



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Entering a packing room, the shrimp are sorted and graded; then arranged in stainless steel trays holding 5 lbs. Automatic grading is coming into use. This room is tiled and kept scrupulously clean. The girls are of high type, intelligent and deft.

MEXICO'S

PACIFIC SHRIMP

From Nothing to \$13,500,000 a Year in One Decade

MEXICO'S Pacific Shrimp fishery in 10 years has extended along 2,000 miles of coastline and become Mexico's most valuable fishery. During the 1949-50 season, it sent to the United States 21,000,000 lbs. of fresh frozen premium shrimp with a value of more than \$13,500,000 to fishermen and producers.

In return—as they have since 1940—the Mexicans spent millions in this country for equipment to build, maintain and modernize sharp-freezing plants; for cartons and overwraps; for machines to package their high-class product; for new trawlers and freezer vessels; and for a vast variety of marine equipment items, from nets to paint, engines, electronics; and for engineering skills.

Today, from El Golfo, in the far north of the Gulf of California, to Salina Cruz, Gulf of Tehuantepec, this 100 percent Mexican industry has at least 60,000,000 pesos invested in shore plants and another 50,000,000 in vessels and equipment. It has contributed hugely to an improved economy, and brought a higher way of life to thousands.

A score of freezers are now in operation. The trawler fleet has reached 450 vessels, and is being constantly increased. To the traditional 5-lb. frozen shrimp block, the 12-oz. consumer package has been added and may

by the end of the 1950-51 season reach 10% of the total export.

Practically every freezing plant has been enlarged and modernized for the new season. Automatic handling of the product is increasing. Afloat, some 80% of the fleet has radiotelephones. Use of sonic depth finders is increasing, more as a safety factor at present than to discover new shrimp beds.

A long-time, well-financed research designed to make possible the sustained yield of the resource is under way by the industry-financed Instituto de Pesca del Pacifico, Guaymas. The life cycle and biological facts are sought as the essential foundation for a program of conservation with maximum safe production.

American importers, notably among them, Wilbur-Ellis Company, and its recently acquired Marine Products Company; Fortuna Foods, Inc., Stamm-Schulman Company, and others, will invest millions of dollars in floating capital this season to move some 700 rail carloads to all parts of this country.

Availability of this premium shrimp, jumbo size, particularly in Southern California, has spurred American merchandising to offer the consumer the product in many attractive packages, as illustrated by PACIFIC FISHERMAN's montage of Mexican and American cartons and overwraps, representing about 90% of the industry.



"Shrimp Row" at Guaymas, principal center of Mexico's Pacific Shrimp industry, is pictured in the photographs on these two facing pages. The business had its beginnings on the small peninsula divided by the fold of the two pages. At its tip is the original freezer, Productos Marinos de Guaymas. Next toward the camera is the 60-ton ice plant of Planta de Hielo Monarca, then the freezer of Productos Congelados. Across the Embarcadero near the left margin of the right photograph is Mariscos Congelados del Pacifico.

GROWTH

Based on a Rich Natural Food Resource

FOOD source for natives along Mexico's west coast for hundreds of years; trapped or netted for sun-drying by Chinese for at least half a century, the vast Pacific shrimp fishery of Mexico was first "discovered" by Americans in the early '20s.

The late John Heston took two San Pedro seiners into the Gulf of California in 1921; first to Guaymas; then south into Topolobampo's San Carlos Bay, rigging them for trawling.

The venture was not too successful, the great shallow bays being unsuitable for trawling. Heston did, however, ship to Los Angeles and San Francisco a lot of shrimp, some fresh in ice; some dried. He found it more feasible to buy from the Indians than to operate his own boats.

During the '20s several Japanese firms located in Southern Califor-

nia, commenced more or less successful experiment of transporting fresh shrimp by vessel to San Diego and San Pedro markets.

In November, 1928, H. C. Tankledge, now owner of the Pacific Food Products, Los Angeles, shipped the first carload of shrimp from Topolobampo, selling Joe Alioto, San Francisco, 40,000 lbs., and getting 6c to 8c per lb. (Compare that with today's 50c to 70c per lb.)

From that time to 1934, Mr. Tankledge contracted with Japan to ship 1,100 tons in 1931, but only produced 237 tons. In 1932 the Japanese wanted 1,700 tons, but that year's fishing was unsuccessful. By the time fresh shrimp—frozen on arrival in Los Angeles by Union Ice Company—for local sale, amounted to less than two carloads a year and had a wholesale tag of around 14c per lb.

Early Floating Freezers

In 1931 a noteworthy attempt to exploit the fishery was made by the Japanese, Shin Shibata. He outfitted the schooner, *Martha Buehner*, with freezing equipment, but the operation became involved and was soon abandoned.

In 1934 important capital and a real working organization to put the fishery on an industrial basis was undertaken by John Rados, president, Harbor Boat Building Co., Terminal Island; Lawrence Berg, Seattle; and Fred E. Llewellyn.

The 105' *Theodore Foss* was purchased and equipped for freezing and carrying 120 tons under refrigeration. Under the name, American Prawn Company, the Americans went into the shrimp business in a big way.



The building with the tower in the left photograph is *Pesquera E Industrializadora de Guaymas*. On the spur of land at the extreme left of the panorama is *Fomento Maritimo* and *Pesquera E Industrial del Pacifico*. The new plant of *Hielera del Golfo de Cortez* is located near the spur of land showing at the extreme right margin of the panorama. The city of Guaymas is at the right of the area photographed.

INDUSTRY

Built by a Courageous Human Resource

The veteran San Pedro fisherman Louis Zermatten, with the 45' *Dauntless*, went out from Guaymas, inaugurating open water trawling for shrimp. The natives confined their activities to cast-netting in the bays.

A reduction plant was bought at Guaymas; a cold storage plant at San Pedro, and a fleet of boats. These men perfected the method of packaging headless shrimp in frozen blocks.

Soundly organized and financed, this enterprise might have made millions for the investors; but time was running out for American enterprise and capital in this Mexican fishery. In the early '30s Mexican law established the cooperativa, and provided that fishing could only be done through these labor groups, with their peculiar political set-ups.

It became increasingly difficult and

expensive for the American Prawn Company to produce its "Ocean Fresh" shrimp; and with the Japanese securing a four-year concession in 1937 to fish shrimp and other seafoods in the Gulf of California on

the pretext of educating the Mexican fishermen, the company withdrew in 1938. This was not before the pattern for future development had been blueprinted by these progressive Americans.

Puerto Penasco, Rocky Point, Sonora, has become one of Mexico's important shrimp shipping centers, particularly for fresh shrimp, and a large fleet of trawlers is assembled there, in addition to a boatyard which is turning out a number of new trawlers.





General Abelardo L. Rodriguez, former President of the Republic of Mexico, former Governor of Lower California, former Governor of Sonora, who is generally given credit for stimulating Mexico's development of her rich resource of Pacific shrimp, and of initiating today's prosperous and progressive industry.

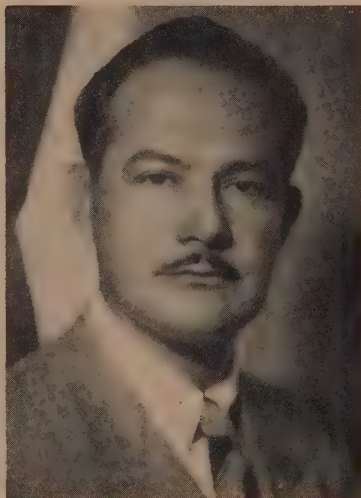


Francisco Morales, Jr., general manager, Pesquera del Pacifico, leading fish cannery of Mexico, and partner with General Rodriguez, General Manager Juan Sanchez and associates in the new Productos Congelados de Santa Clara, at El Golfo.

By this time another alert American, Lucian K. Small, now head of Marine Products Company, San Diego, was observing the trends and urging his long-time friend, General Abelardo L. Rodriguez, former president of Mexico, to organize the industry as a 100% Mexican enterprise.

The Japanese Take-Over

Long before this, the Japanese had been watching this potentially rich fishery. By the middle '30s they were in the Gulf of California, weaving political webs, hampering operations of the American Prawn Company, and trying to gain control themselves.



Hector Ferreira, administrator-director, Pesquera Industrializadora de Guaymas; president, Instituto de Pesca del Pacifico, research organization, and one of the leaders of the Mexican Pacific shrimp industry since the late '30s. From two plants and a freezer ship he produces for Fortuna Foods, Inc., four brands: "Guaymex," "Lolita," "Clearblue" and "Rocky Point."

They succeeded very well, not only securing a four-year concession, but eventually gained such power as to control the entire west coast fishery, and to establish what was practically a military headquarters at Guaymas as a center for espionage.

From 1937 to 1940 was the darkest chapter in Mexico's western

fisheries. The Japanese grew strong there and in Mexico City. Two great Japanese concerns moved fleets of trawlers, feeder boats and mother-ships into the Gulf and started a shuttle service to Japan. It is estimated they took more than 30,000 tons of shrimp during the period.

Meanwhile, clear-thinking courageous young Mexicans were watching. Hernando De Cima, now one of the leading shrimp operators, went

Hernando De Cima, president, Productos Congelados, Guaymas and La Reforma, producers of Wilbur-Ellis' "Southern Seas" shrimp. He worked for the Japanese in 1937 in the Gulf of California; learned their shrimp catching and handling methods. He is associated with two brothers, Ernesto and Arturo De Cima.



Cayetano Ynigo Seldner, general manager of the west coast's original shrimp freezer of Productos Marinos de Guaymas at Guaymas.



THE WORLD'S FINEST FRESH FROZEN SHRIMP

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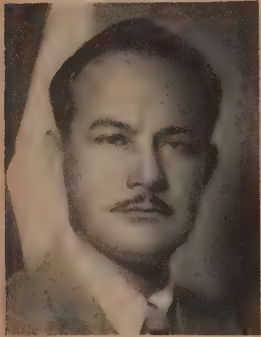
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**FRESH FROZEN
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"This pledge and our pride is behind every shipment of our brands 'Guaymex', 'Clearblue', 'Lolita' and 'Rocky Point', crossing the International border for distribution everywhere in your country."

HECTOR FERREIRA
Administrator-Director

After catching, our Shrimp are immediately headed and veined; then thoroughly washed and packed in ice.

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Reason is because only the finest, carefully selected Shrimp go into these packages.



Counts Produced in
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- 15-20
- 21-25
- 26-30
- 30-35
- 35-40

"CLEARBLUE"

"LOLITA"

"GUAYMEX"



OUR NEWEST
PACK FOR THE
1950-51 SEASON
IS

TURN THIS PAGE



5-lb. RANDOM PACK

Rocky Point

BRAND
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Frozen at Sea
on the
Crystal Clear
Pacific Ocean
aboard the
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SHRIMP
FISHERY

160' "El Guaymense" is a modern freezing vessel especially outfitted for handling Shrimp at sea.

The Vessel will operate during the 1950-51 season from Rocky Point at northern end of the Gulf of California to Salina Cruz, Gulf of Tehuantepec.

Aboard this sharp freezer will be produced our "Rocky Point" 5-lb. "random pack" style package of Jumbo Shrimp.



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TEXAS



Executives of the "Mar Bermejo" shrimp freezing plant at Santa Rosalia, Lower California. Left to right: Juan E. Rigollot, manager; Victor Pierre Mussio, president; Capt. Henry Flourie, assistant manager.

to work for the Japanese; did their bookkeeping, learned their methods.

Another was Hector Ferreira, also a leader today.

With his brother-in-law, Juan Zubiaga, he moved quietly into Topolobampo in 1939, operating two boats in the bays and shipping to the U. S. Later he interested General Rodriguez into building, under incredibly difficult conditions, Pesquera de Topolobampo, S. A., now probably the largest shrimp freezer in the world.

When, in September, 1940 the Mexican government announced a renewal of the Japanese concession, General Rodriguez went into action. He convinced President Cardenas of the military danger, and offered to finance and develop a wholly Mexican shrimp industry. The Japanese then lost the concession and withdrew.

First there had to be freezer

plants ashore, and a second essential was development of distribution in the only market possible, the United States. L. K. Small and his partner, Benjamin W. Shipman, assumed marketing responsibility, distributing the "Ocean Garden" 5-lb. frozen block in heavy waxed cartons developed by Fibreboard Products, Inc.

First organized company was Cia. Productos Marinos de Guaymas, S. A., now managed by Cayetano Ynigo, S., incorporated for 2,500,000 pesos. The late Luis G. Davila was president; General Rodriguez, vice president; Alberto Cubillas, secretary; Alfonso Zaragosa, treasurer. Board of directors were: Capt. Diego Martinez Corona, Angel Murillo, Juan Bulle. Hernando De Cima was named general manager.

Pesquera de Topolobampo followed, with Hector Ferreira as general manager. Later he built Topo-

WHERE THE SHRIMP COME FROM

This map, by Artist Wallace F. Hamilton, shows the present extent of the Mexican Pacific Shrimp Fishery. Shaded lines are the known shrimp areas. Four years ago, when *PACIFIC FISHERMAN* published the "Pacific Fisheries of Mexico", the map at that time showed shrimp fishing only from Guaymas to a point some 75 north of Mazatlan.

Two seasons ago, shrimp was discovered in quantity almost at the mouth of the Colorado River, and on both sides of the Gulf of California in practically a straight line across from San Felipe to Rocky Point. Most of the fresh shrimp shipped in ice to Southern California, now comes from this area.

At the same time, the southern limits were extended south to San Blas, where in the vast network of bays and esteros and in shallow offshore waters, has developed one of the most important producing areas.

For the 1950-51 season, the industry will have yet another fishing area, this one extending south from the Gulf of Tehauntepec to Guatamala, a distance of some 300 miles.

No shrimp beds are indicated along Lower California's eastern shore, although there is a shrimp freezer located at Santa Rosalia, because of a deep, rocky coastline. Along the east side of the gulf there is a necklace of huge bays, very shallow, whose sandy bottoms are being constantly replenished with shrimp food from rivers and shore washings.

From Guaymas north to Rocky Point—Puerto Penasco—there are no known shrimp beds, but south of Guaymas to the Panama Canal, on the west coast, shrimp are found, and more fishing areas will be uncovered.





Lucian K. Small, president, Marine Products Company, U. S. importer of Mexican Pacific shrimp since the fishery became a 100 per cent Mexican industry in 1940.

lobampo No. 2 plant at Guaymas, operating in connection a vitamin plant. He resigned in 1947, acquired the Guaymas plant, changing the name to Pesquera E Industrializadora de Guaymas; acquired the Balboa Associates plant for his 12-oz. pack; then the great ice-making plant of Planta de Hielo Monarca. For 1950-51 operations Mr. Ferreira has purchased the 160' freezing ship *El Guaymense*.

Freezing plants began springing up after the war. Instead of a comparatively short coastline for fishing,



General Silvano Perez Ramos, head of Fomento Maritimo, Guaymas, producers of "Cortez," "Amigos" and "Salud" brands; president, Asociacion de Industrias de Congelacion, organization of shrimp freezers; and head of Mexican national chamber of fisheries, Mexico City.

the northern waters of California were discovered teeming with shrimp. Below Mazatlan, a tremendous fishery was uncovered, and now promises to be the greatest of all. Now, from Salina Cruz, Gulf of Tehuantepec, to the Guatamala border Mexican shrimp trawlers are working.

Ever-Expanding Industry

In 1944 the Cia. Productos Congelados, S. A., was organized, and in it Hernando De Cima was joined by his brother, Ernesto De Cima. This big freezer at Guaymas had a companion in 1945 at La Reforma, with Arturo De Cima joining his brothers. Now the brothers and their associates plan a third plant at Mazatlan, and also to acquire another freezer-motherhood to augment open water operations of the *Mahoning*.

Wilbur-Ellis Co., great merchandising house, which in 1949 acquired Marine Products Company, in 1948 became the U. S. distributor for Productos Congelados shrimp, which it markets under "Southern Seas" and "Southern Royal" brands.



Eduardo Rodriguez, superintendent, Pesquera de Topolobampo, whose planning and engineering skill since 1941 has brought this great freezer and widespread operations to undisputed leadership in west coast shrimp production.

Large distributing concerns such as Stamm-Schulman Company, Chicago, began distributing Mexican shrimp throughout this country. More and more freezers went into operation, from the El Golfo plant of Productos Congelados de Santa Clara, S. A., located at the extreme northern tip of the Gulf of Califor-



Jack Willis, coordinator between Wilbur-Ellis Company and its associate company, Marine Products Company, San Diego. He also acts as liaison official between the U.S. importers and Mexican shrimp producers.

nia, to Refrigeradora de Salina Cruz, S. A., 2,000 miles south, and with a score in between.

Mazatlan, in Sinaloa, saw Pedro L. Pinzon develop Refrigeradora del Noeeste, S. A., with "Reno" brand distributed by Stamm-Schulman. Soon there will be five plants there. Mr. Pinzon last season established Refrigeradora Nayarita, S. A., at Tepic, Nayarit, as an adjunct to his main plant.

Across the Gulf from Guaymas, principals of the French copper mining concern at Santa Rosalia, established a shrimp freezing plant. "Mar Bermejo, S. A.," with "Astro"



Jose G. Gutierrez, general manager, Pesquera de Topolobampo, Topolobampo, Sinaloa, now considered to be the largest shrimp freezing operation in the world. This successful industrialist has interests in several west coast shrimp freezing concerns.



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PACKAGING THAT CATCHES NEW MARKETS FOR FROZEN FISH AND SHRIMP!

MARATHON'S FROZEN FISH PACKAGES PROTECT AND SELL YOUR PRODUCTS!

Marathon's Snow-White Laminated Cartons protect the "just caught" flavor and freshness of frozen fish and shrimp for months . . . let you sell your catch when the market is best! These pre-glued, quick set-up cartons step up packaging line efficiency. Marathon, long a leader in packaging development for frozen fruits and vegetables, now offers the same high quality in frozen fish packaging. For *your* products, use this convenient frozen food packaging that housewives *know* preserves fresh goodness!

Marathon's Eye-Catching TYTON® Overwraps sell your fish and shrimp with appetizing, true-color pictorial reproductions—executed and roto-printed by Marathon specialists. The brilliant designs attract self-service shoppers, identify the product and brand at a glance, and win *impulse* purchases. TYTON® Overwraps are specially waxed for quick, positive heat-sealing . . . sparkling gloss finish . . . *extra* protection!

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Service is what the shrimp producer wants from his broker. Confidence in our service by leading producers has made us the fastest growing brokerage house in the world. We are proud to list among our clients the important firms below:

Compania Maritima Y Pesquera
"Mar Bermejo", S. A.

Santa Rosalia, Bjo CFA. Mexico
Astro Brand
Mar Bermejo Brand
Santa Rosalia Brand

Refrigeradora Comercial De
Culiacan, S. A.
Culiacan, Sinaloa, Mexico
Deli Brand

Refrigeradora
De Salina Cruz, S. A.
Salina Cruz, Mexico

Refrigeradora del Noroeste, S. A.
Mazatlan, Sinaloa, Mexico
Reno Brand

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234 Front St.

and "Santa Rosalia" brands. Stamm-Schulman distribute its output.

At Guaymas, the number of plants has increased to seven. Newest is the ultra-modern Hielera y Congeladora del Golf de Cortez, S. A., headed by Alberto Tirado, J., with "El Conquistador" and "El Cortez" brands, distributed in this country by Leonard A. Dunagan Company.

Among the most important operations is that of Pesquera E Industrializadora de Guaymas, S. A. This concern will have a new U. S. distributor for the 1950-51 season, Fortuna Foods, Inc., Dallas and Los Angeles, headed by W. W. Butler, Sr., and with Edgar Bergen of radio fame, as principal investor.

This Mexican firm has four brands, which today have practically national distribution: "Guaymex," "Lolita," "Clearblue" and now a 5-lb. "random" pack, "Rocky Point." Produced are both the conventional 5-lb. frozen block and the 12-oz. consumer package.

The plant of Fomento Maritimo, S. A., established several years ago by General Silvano Perez Ramos, has three well known brands in the

Close-up of "Under 15" shrimp being packed in 5-lb. stainless steel trays. The pattern of packing varies with size of the shrimp. Note how these shrimp are being placed in two orderly layers, each consisting of only two rows. The neat, intelligent girl is typical of those employed in Mexico's Pacific shrimp industry.



The final step—loading a railroad car with frozen master cases of 5-lb. blocks of shrimp. Loading is usually done around sunset and the cars are carefully pre-cooled before being loaded. Far-below-freezing temperatures are maintained in the cars.



5-lb. package: "Cortez," "Amigos" and "Salud," distributed by Fortuna Foods. Another brand, well known in the trade, "Crownpack," distributed by E. H. Gayou, is produced by Capt. D. M. Corona's Congeladores de Productos En Alta Mar, S. A., Guaymas.

The newly established Productos Congelados de Santa Clara at El Golfo, another enterprise of General Rodriguez, and managed by Juan Sanchez, produces the "Ocean Garden" pack, as does the Guaymas plant of Mariscos Congelados del Pacifico, S. A., and the Pesquera de Topolobampo, S. A., now managed by Jose G. Gutierrez.

"Ocean Garden" went to eastern markets as early as the 1942-43 season; in Chicago first, spreading to Detroit, Cleveland, Pittsburgh, Philadelphia, New York, Kansas City and Denver. Today, it is nationwide.

Southern California was first to recognize the premium quality and jumbo size of this shrimp, and has enjoyed it for 20 years. Introduction of the 12-oz. package to the U. S. was started in Los Angeles; now is nationwide.

In 1948, Marine Products sent Ed Amende, Reinke & Amende, Los Angeles brokers, east and, working with Gordon Murphy, J. R. Poole

Company, New York, to establish 15 wholesalers in 10 days. At Pittsburgh, W. J. Hasselman Company, took on Pennsylvania and parts of Ohio.

Stamm-Schulman Company, Chicago and New York, were early in this eastern distribution; and Mid-Central Fish Company, through Manager O. L. Carr, has been an important distribution factor.

Rubenstein & Sons Produce, Inc., through W. W. Butler, Sr., Dallas, established wide distribution for Pesquera E. Industrializadora de Guaymas and Fomento Maritimo, Guaymas. Wilbur-Ellis Co. in two years established a national reputation for the "Southern Seas" 5-lb.; this year will add the 12-oz. package.

On the west coast distribution had an opportunity to be more direct. Among pioneers in popularizing Mexico's Pacific shrimp were J. J. Camillo Company, San Diego; Koulouris & Casaretto Company, E. C. Jack Brokerage Company, Otto Wessich, Holly Sea Food Company, Mel - Rox, Freeman Certi - Fresh Foods, Central Fish & Oyster, Howard Burge Company, Reinke & Amende, Young's Market, Stamm-Schulman Company; and the staffs of Wilbur-Ellis Co. at Los Angeles, San Francisco and Seattle.



Here is close to 10 inches of *Penaeus Stylirostris*, (Blue), the No. 1 shrimp of the Mexican Pacific fishery. The photo was taken at Pesquera de Topolobampo, by Horace Selby. More than 90% of the annual catch along Mexico's west coast is this species.

The PROCESS of PACKING

White-clad girls in the tile-walled plant of Pesquera de Topolobampo sort and grade the shrimp, before packing in 5-lb. stainless steel pans. This plant shipped to the U. S. 130 railroad cars of 43,000 lbs. each during the 1949-50 season.



MEXICO'S Pacific Shrimp is traditionally packed for export to the United States in 5-lb. ice-glazed blocks, packaged in heavy-waxed cartons, originally developed by Fibreboard Products, Inc.

While the 12-oz. consumer package is rapidly increasing in popularity and number of Mexican concerns installing 12-oz. packing and wrapping lines, the 5-lb. carton still carries some 90 percent of Mexico's Pacific shrimp.

The 1949-50 season, which ended in July, saw 21,000,000 lbs. delivered to freezers from El Golfo to San Blas. About 600 railroad cars were required to move production to the international border. In addition, refrigerated motor transports were used both to ship some 4,000,000 lbs. of fresh shrimp from the upper waters of the Gulf of California.

A typical procedure for handling the 5-lb. pack from trawler to railroad car, with some variations, into individual plants, is as follows:

Shrimp carried in crushed ice in the hold of a trawler is unloaded in wicker baskets and passed to the dock where they are washed to free the ice and then weighed.

The shellfish, if not to be packed



Deft, intelligent, white uniformed women packing 12-oz. consumer cartons of shrimp at Pesquera E Industrializadora, Guaymas. On this line, shrimp is graded and sent by gravity to the packers' side, falling into size bins. Thus each packer is handling definite counts. Between the divided table is a moving belt to carry off culls.

immediately, are placed in boxes with layers of ice and placed in cold storage. Ready-to-be-packed shrimp are washed again and usually placed on a metal screen conveyor, draining enroute to the packing room. Girls then expertly grade the shrimp as to size and pack in stainless steel trays. Paid by piecework, the packers learn to distinguish grades quickly. The headed shrimp are placed in the trays in orderly rows and two layers deep. The trays then are moved to the weighing table, where inspectors representing both the packers and distributors make one of the series of examinations that follow the shrimp from trawler hold to railroad car or motor transport.

With a screen over the tray, an operator washes it thoroughly in cold water and reverses it to drain. It is then passed to another operator, who pours a measured amount of pure water into it for glazing. The trays are covered and then stacked in a slotted freezer truck about 210 trays. Freezing requires about 16 hours at a temperature of minus 20 to 30 degrees F.

Taken from freezer, the tray is uncovered and a workman dips it in fresh water to release the frozen



Constant and painstaking inspection as to count, packing, weight and condition is a part of Mexico's Pacific shrimp industry. Here Wilbur-Ellis Company inspectors work closely with those of Productos Congelados, producers of its "Southern Seas" shrimp. Here, left to right, Don Roberts, former California fishery inspector; Felipe Puente, liaison official, and Superintendent Everado Gaxiola, examine sample trays from the packing lines. All concerned in the industry are becoming increasingly aware of the importance of proper handling and inspection of shrimp from trawler to packaging and final shipping. Most U. S. importers maintain their own inspectors at the freezing plants, with full cooperation from the producers.

KOHLENBERGER....

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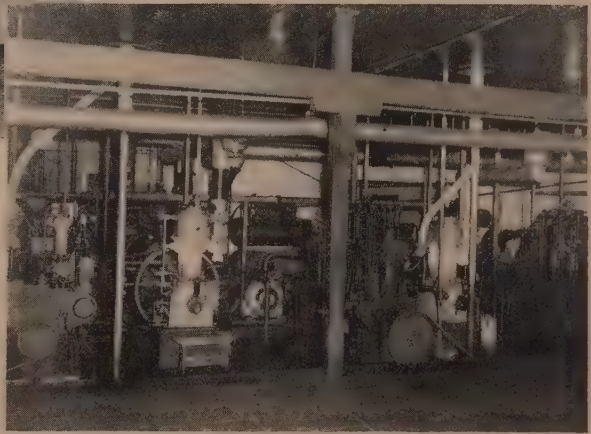


When General Abelardo L. Rodriguez and Associates first planned to develop the green shrimp fishery in the Gulf of California, they called on the engineering skill and proved refrigerating machinery of Kohlenberger Engineering Corporation.

FIRST IN '40 . . .

Engineered and equipped the first great freezing plant of the Mexican Pacific Shrimp industry in 1940 at

**PRODUCTOS MARINOS
De GUAYMAS, S. A.**



These two 7½x7½ Kohlenberger Compressors were installed at Productos Marinos in 1940 and are still in operation, a tribute to the dependable refrigeration equipment of KOHLENBERGER.

STILL LEADING IN '50!

. . . with one of the most
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COMPANIA MARITIMA Y PESQUERA "MAR BERMEJO" S.A.

LOCATED AT SANTA ROSALIA, BAJA CALIFORNIA

Delivering to the U. S. trade under "Astro," "Santa Rosalia" and "Mar Bermejo" brands, this modern plant was designed and equipped by KOHLENBERGER ENGINEERING CORPORATION, to produce the highest quality fresh frozen shrimp obtainable. For the 1950-51 season, KOHLENBERGER is doubling the freezing capacity and installing an ice-making plant.

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DEPENDABLE REFRIGERATION BY KOHLENBERGER

block, turns it over and, with the heel of the tray, shoots it across a table and into a side-opening carton held by another operator, who quickly closes and immerses the whole carton into ice-cold pure water to fill up any voids and to obtain a perfect glaze.

Then packages are then placed in master cartons and stored at zero temperature until ready for shipping. A team of four men can fill and store 30 master cartons an hour.

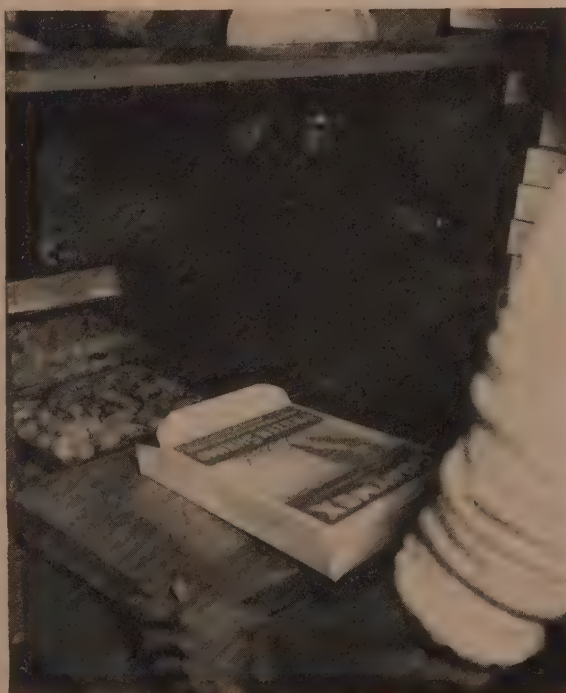
In preparation for shipping, a railroad car is prepared 24 hours in advance of loading and precooled to 26° F by six tons of ice placed in the bunkers, with 30 percent salt.

Car capacity ranges from 692 to 865 master cases. South of Guaymas the railroad cars are usually loaded to maximum capacity. As cars proceed to their destination they are re-iced as necessary. Refrigeration within cars, maintained by fans operated from the turning wheels, and can achieve zero temperature. Each car is insured against spoilage and accident under a general policy of product liability.

Established count sizes per pound for the 5-lb. block are: under 15; 16 to 20; 21 to 25; 26 to 30; 31 to 42; 43 to 65; 52 to 80.



Removing a truckload of stainless steel-cased shrimp from the freezing chamber. An average of 210 trays holding 5 lbs. each are stacked in this truck and wheeled into the freezer. It requires around 16 hours to freeze the block at 35 degrees below zero.



Close-up of removing shrimp from trays and placing them in cartons. Shrimp in trays are dipped in running water to release them from the metal. Then, using the inverted tray as a pusher, operator slides the frozen block across a table and with unerring aim sends it into an end-opening heavy-waxed carton, which is immediately closed.



A typical set-up for final stage of packaging. In background is shown the frozen trays from the freezer. The two operators facing camera receive the trays, dump them in water to release the 5-lb. block of shrimp. The two men with backs to camera put the block of shrimp in a carton, dip it in water for glazing, and pass it to the workman in the immediate foreground, who fills and closes the master carton.

MANNS ENGINEERED REFRIGERATION

for

MEXICAN PACIFIC SHRIMP FREEZING PLANTS

Why? Because R. E. MANNS COMPANY has installed more refrigeration plants on the West Coast of Mexico than any other United States concern.

ENGINEERING SKILL AND EXPERIENCE

R. E. Manns Company has been solving refrigeration problems of the Mexican Pacific Shrimp Industry for many years. We are proud that our skill and experience has contributed so greatly to the development and prosperity of this 100% Mexican fishery. MANNS ENGINEERED REFRIGERATION Plants are located from El Gulfo to Mazatlan.

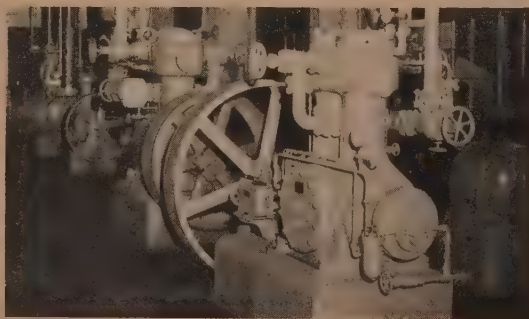
CONFIDENCE

Time after time, when Mexican operators plan to modernize or enlarge their plants, they call on R. E. MANNS COMPANY. Pesquera de Topolobampo, on San Carlos Bay, probably the world's largest shrimp freezer, is an example of the complete confidence placed in this firm. For the 1950-51 season we have again been commissioned to greatly increase its daily freezing capacity.



SERVICE

Service to our friends everywhere has always been the business policy of R. E. MANNS COMPANY. Our staff of trained engineers and service men are available in Mexico, Central and South America to work out refrigeration problems.



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Refrigeration Engineers

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Wilmington, Calif.

The stainless steel pan, in which the shrimp is packed to produce the 5-lb. frozen block, is a precision-built piece of equipment on which a lot of experimentation was done before its use became standard in the industry.

One of the principal suppliers of these pans—it is estimated there are more than 65,000 in use now—has been the Stainless Steel Polishing Company, Los Angeles, who some years ago appointed R. E. Manns Company as sales representative.

Not only must the pans be rust-proof, hence the stainless steel, but they must be reinforced to maintain the exact shape, in spite of rough handling and strenuous use during the long seasons.



Filled and inspected, the trays of shrimp then are conveyed to the final washer. A screen is placed over tray; it is immersed into clear, cold water and drained. Tray then passes to operator, seen in the background, who pours in a measured amount of fresh water and covers the tray with a lid.

And Now -- The 12-Ounce Package

THE 12-oz. consumer package, attractively wrapped and comparatively new to the Mexican Pacific Shrimp industry, is particularly popular in Southern California.

With the opening of the 1950-51 season, shrimp will be featured in this package not only in its fresh frozen state, but also prepared in many ways as such shrimp is becoming a familiar product in the refrigerated display cases of food stores.

Along the west coast a number of freezers have installed packing lines and wrapping machines for 12-oz. brands. Wilbur-Ellis Co. at Productos Congelados this season introduces its new 12-oz. "Southern Seas" package.

The 12-oz. carton is not as new as some think. Marine Products Co. experimented with an "Ocean Garden" consumer package a number of years ago, but the package for Pacific shrimp is not more than two years old so far as important volume is concerned.

During the 1949-50 season Pesquera E Industrializadora de Guaymas produced three 12-oz. brands, "Guaymex," "Lolita" and "Clear-blue" for national distribution.

Fresh or frozen shrimp arrives in Southern California to be prepared by a number of concerns. It is offered ready to cook, split and

breaded; with an accompanying batter mix. In the "heat and eat" category some packages are complete with French fried potatoes.

Freezing 12-oz. consumer packages of shrimp in 16 hours at minus 20° by circulating air in the bays of a vertical piping freezer installation.





Typical shrimp trawlers at unloading piers of "Shrimp Row" at Guaymas, Sonora, largest freezing center of the Gulf of California industry. The fleet, operating from the mouth of the Colorado River to San Blas, below Mazatlan, now numbers 400 fishing vessels, plus a number of freezer motherships. The fleet is rapidly increasing.

PRODUCERS OF MEXICO'S OUTSTANDING PACIFIC SHRIMP

Pesquera de Topolobampo

Pesquera de Topolobampo, located on a rocky hillside on San Carlos Bay, Sinaloa, is an extensive operation, both in the plant's ability to freeze 30 tons of shrimp daily, and also in its widespread network of fishing camps; its trawler and canoe fleets; and shrimp canning division.

Production of fresh frozen shrimp from Topolobampo during the 1949-50 season was 130 railroad cars, largest individual production in the industry's history. Under the man-

agement of Jose G. Gutierrez and Superintendent Eduardo Rodriguez, the freezer has almost doubled in capacity by addition of power units and refrigeration, contract going to R. E. Manns Company, Wilmington.

The original equipment, capable of freezing 15 tons daily, with mostly Vilter compressors and boosters, installed by the Manns Company, has been added three booster compressors, driven by 25-hp. motors; two 9x9 machines, by 75-hp. motors, and 6-ton vertical Vilter "Packicer."

New power plants, augmenting original equipment and two "Caterpillar" diesel generating units installed last year, is a 450-hp. Fairbanks Morse diesel, driving a generator. Altogether the freezer has today 1,000-hp.

Freezer rooms, originally 12, are now 18, with installation of six new stall freezers. Two fresh product rooms have been added. Since 1946 the plant has been continually expanded, additions including a complete shrimp cannery, supplied by

The model freezing plant of Pesquera E Industrializadora de Guaymas, S. A., with a daily freezing capacity of 10 tons daily, producing the "Guaymex," "Clearblue" and "Lolita" brands. Operated in connection is the 12-oz. plant of Pesquera E. Industrial del Pacifico, S. A., and 60-ton ice-making plant of Planta de Hielo Monarca, as well as the 160' freezer ship, *El Guaymense*, producing "Rocky Point" 5-lb. random pack.





Just take these easy steps to **GREATER** **SHRIMP PROFITS**

Wonderful flavor from
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Uniform size and guaranteed
count. Plenty of larger
sizes available.



Protected right to the
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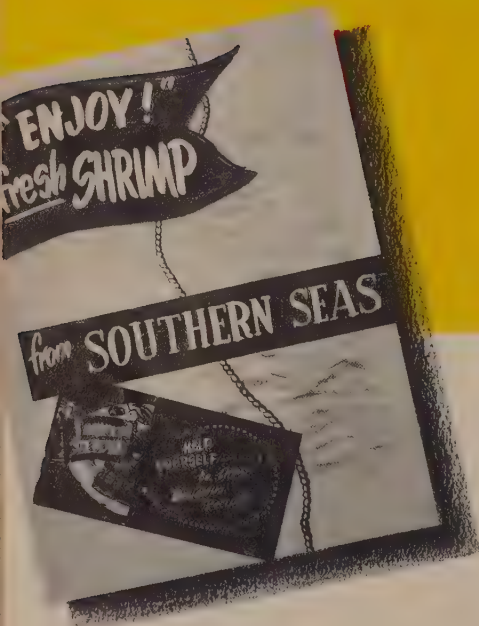
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for outstanding quality.



Regular source of supply
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Now step
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the other
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These effective helps build PROFITABLE SALES



You can make money from the top quality, the outstanding flavor and the careful handling that make Southern Seas and Southern Star Shrimp so popular everywhere. The packers are pioneer suppliers, who have developed modern methods to insure the delivery of headless, crisp shrimp in prime condition. Wilbur-Ellis Company distributes a large part of the Gulf of California supply, so you can be assured of regular supplies throughout the year.

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During last season a 12-oz. packing line was installed for production of "Ocean Garden" package, with a Package Machine Co. wrapping machine. The plant has its own shore radio station, using a 75-watt RCA set, and most of the large trawler fleet and its fleet of 40' former LCVF's, for transporting bay-caught shrimp are RCA-phone equipped.

This year, shrimp from the trawlers will be handled by semi-automatic washing and conveyor system, supplied by Brogdex Company, Pomona. The ice-making plant has practically been doubled.

Pesquera de Topolobampo is located adjacent to some of the finest shrimp beds, both open water and in the vast shallow bays. It employs a fleet of 400 canoes for the cast-netting in the bays, and has a trawler fleet of 40 vessels. More are being added this season, new ones being Atlas-driven.

The company maintains six fishing camps, the largest being at San Ignacio, on Navachesta Bay, which has a cold storage and ice-making plant, also by R. E. Manns Company. An 80-hp. Atlas drives a 5½ by 5½ Vilter, together with a 6-ton Pakicer.

Pesquera E Industrializadora de Guaymas

This model plant at Guaymas was formerly the Pesquera de Topolobampo No. 2, which Hector Ferreira acquired in 1948 when he withdrew as general manager of the latter company, and which he had planned and built, with a vitamin plant in connection.

Taking over the No. 2 freezer and changing the name, he improved the plant, stepping capacity up to 10 tons daily. Then in rapid succession he acquired the former Balboa Associates freezer, calling it Industrial E. del Pacifico; and the 60-ton ice-making plant of Planta de Pielo Monarco. For the 1950-51 season the 160' freezer, *El Guaymense*, has become the property of the organization of which Hector Ferreira is administrador - director; Antonio Zubiaga, secretary; Francisco von Borstel, manager and Kurt Unger, superintendent.

Main plant, devoted to producing the 5-lb. frozen block, has three Vilter 7½ by 7½ compressors, driven by 50-hp. motors; and one smaller Vilter booster, by 30-hp. This plant is being constantly improved

Mexico's Pacific Shrimp Freezing Plants

(Listed in geographical order, north to south)

Location	Brands	Daily Freezing Capacity, Tons	U. S. Importer
EL GOLFO, SONORA			
Productos Congelados Santa Clara, S. A.	"Ocean Garden" "Gulf of California"	5	Marine Products Co.
MEXICALI, LOWER CALIFORNIA			
Productos Congelados de Mexicali, S. A.	"Azteca"		
GUAYMAS, SONORA			
Cia. de Productos Congelados, S. A.	"Southern Seas" "Southern Royal"	20	Wilbur-Ellis Co.
Fomento Maritimo, S. A.	"Cortez" "Amigos" "Salud"	10	Fortuna Foods, Inc.
Cia. de Productos Marinos de Guaymas, S. A.	"Ocean Garden" "Gulf of California"	16	Marine Products Co.
Hielera y Congeladora del Golfo de Cortez, S. A.	"Conquistador" "El Cortez"	10	L. A. Dunagan Co.
Mariscos Congelados del Pacifico, S. A.	"Ocean Garden"	15	Marine Products Co.
Pesquera E Industrializadora de Guaymas, S. A.	"Guaymex" "Lolita" "Clearblue"	10	Fortuna Foods, Inc.
Pesquera E Industrial del Pacifico, S. A.	"Lolita" "Clearblue" "Guaymex"	2½	Fortuna Foods, Inc.
Congeladores de Productos En Alta Mar, S. A.	"Crownpack"		E. H. Gayou
TOPOLOBAMPO, SINALOA			
Pesquera de Topolobampo, S. de R. L.	"Ocean Garden" "Gulf of California"	30	Marine Products Co.
LA REFORMA, SINALOA			
Cia de Productos Congelados, S. A.	"Southern Seas" "Southern Royal"	10	Wilbur-Ellis Co.
ELDORADO, SINALOA			
Refrigeradora Eldora, S. A.	"Ocean Garden"	5	Marine Products Co.
SANTA ROSALIA, LOWER CALIFORNIA			
"Mar Bermejo," S. A.	"Astro" "Santa Rosalia" "Celebrity"	12	Stamm-Schulman Co.
CULLICAN, SINALOA			
Refrigeradora de Cullican		4	Stamm-Schulman Co.
MAZATLAN, SINALOA			
Cia Refrigeradora del Noroeste, S. A.	"Reno"	20	Independent
Pesquera de Mazatlan, S. A. (a)		10	Stamm-Schulman Co.
Cia. de Productos Congelados, S. A. (b)	"Southern Seas" "Southern Royal"	10	Wilbur-Ellis Co.
Compania Maritimo del Centro, S. A. (c)		3	
Refrigeradora de Mazatlan (d)		12	
TEPIC, NAYARIT			
Refrigeradora Nayarita, S. A. (e)	"Reno"	2½	Stamm-Schulman Co.
SALINA CRUZ, OAXACA			
Refrigeradora de Salina Cruz, S. A.	"Tehuantepec"		Stamm-Schulman Co.

(a) Ready for 1950-51 season. (b) Proposed. (c) To be converted to shrimp freezing. (d) To be ready in March, 1951. (e) Subsidiary of Cia. de Refrigeradora del Noroeste.



The 1950 "new look" of Mexico's greatest shrimp freezer at Pesquera de Topolobampo on San Carlos Bay, Sinaloa. Added recently have been the personnel houses, left; huge stone warehouse, right end of freezer; and a shrimp cannery and new warehouse, extreme right. Plant now has a capacity of 30 tons frozen shrimp daily.

and this season will have some semi-automatic sorting, grading and conveying equipment, supplied by the Brogdex Company.

The smaller freezer, with 2½ tons daily, produces the 12-oz. packs of "Guaymex," "Lolita" and "Clear-blue" brands. New equipment here is a new-type Kohlenberger plate freezer.

Mr. Ferreira's connection with the shrimp industry is interesting. His father was a fruit and vegetable canner at Hermosillo, where he was a state official. He moved his family to Los Angeles and died in 1924. Meanwhile, Hector was educated in California and spent 11 years in the export department of a Los Angeles bank.

In 1932, with his family, Hector Ferreira moved back to Hermosil-

lo; re-established the canning business. Later he moved to Guaymas, he successfully engaged in canning the Guaymas oyster. By 1939, with his brother-in-law, Juan Zubiaga, he was in San Carlos Bay, Topolobampo, operating shrimp boats despite Japanese opposition.

In 1940 he interested General Rodriguez in building what is now the world's greatest shrimp freezer in that remote section. Today he is one of the most progressive and successful operators in the business. His U. S. importer is Fortuna Foods, Inc.

Productos Marinos de Guaymas

Productos Marinos de Guaymas is the original shrimp freezer, resulting from the efforts of General Rodri-

guez to make the fishery 100% Mexican, and the distribution assistance rendered by L. K. Small, and his partner, Benjamin W. Shipman, of Marine Products Co., in 1941.

The original freezer was engineered and installed by Kohlenberger Engineering Corporation, Fullerton, and the first compressors, a 7½ by 7½ and a 6 by 6, are still in operation. Since then freezing capacity has been greatly increased and from the original five tons daily, the 1950-51 rating being 16 tons. New power plants with Atlas-Imperial diesels were recently installed, and this season R. E. Manns Company is putting in a new tunnel freezer.

Productos Marinos—or, as it is known, "P. M. G."—is now managed by Cayetano Ynigo S. with Marcelo Cortez, superintendent. It is the only plant in which a cooperative, this the wealthy Pescadores del Yaqui, is a stockholder. It produces both the 5-lb. and 12-oz. "Ocean Garden" brand.

Productos Congelados, Guaymas

Productos Congelados has two plants, at Guaymas and La Reforma. Owners are the De Cima brothers, Hernando and Ernesto. Teodor Duran is manager and Everado Gaxiola, superintendent. "Southern Seas" and "Southern Royal" brands of Wilbur-Ellis Company are packed.

Completed in December, 1945, the Guaymas plant has been gradually stepped up in capacity until now it has a daily capacity of 20 tons, and this season has a brand new, white-tiled 12-oz. packing room. The freezing equipment consists mainly of Vilter compressors, chilling blast tunnel freezers, and making 30-tons of ice daily.

Unloaded at dock, shrimp are washed to free from the crushed ice in which they were stored on the vessel, then placed in cold storage to await packing. Automatic handling and conveying machinery for shrimp is coming into use.



The plant at La Reforma has both Vilter and York refrigeration. Acquired two years ago was the freezer vessel *Mahoning*, with equipment and installation by Baker Ice Machinery Company. Planned, although probably not for this season, is Plant No. 3 at Mazatlan, with a daily freezing capacity of 12 tons, and 20 tons ice making.

Productos Congelados operates a fleet of 40 trawlers from 46' to 76' long, including four modern steel vessels by National Steel & Shipbuilding Corporation, and five by Avondale Marine Ways, Superior-driven, these also are of steel.

Refrigeradora del Noroeste, Mazatlan

Refrigeradora del Noroeste is Mazatlan's largest freezer. Late last season an auxiliary plant at a location near San Blas, Refrigeradora Nayarita, S. A., was established. Pedro L. Pinzon is president and general manager; Alain N. E. Desforges, superintendent; at Tepic, the auxiliary freezer is managed by Luis Bernal.

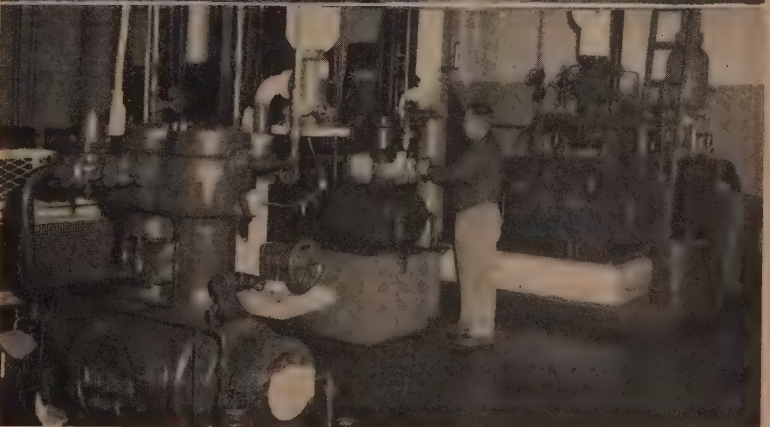
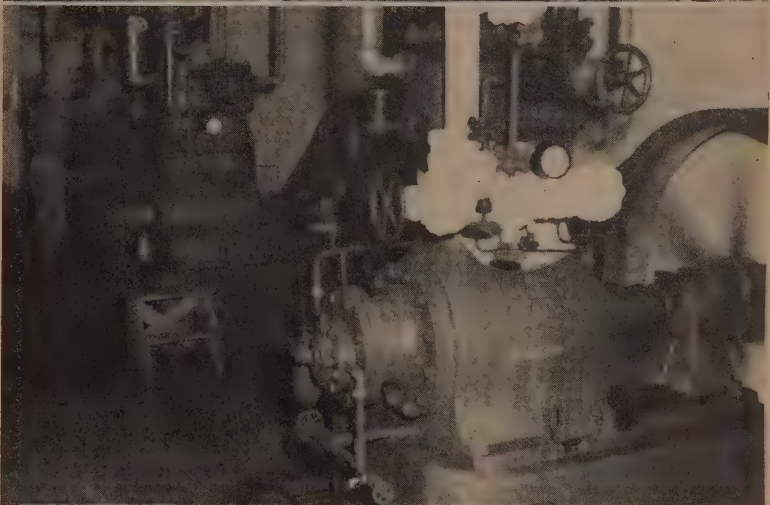
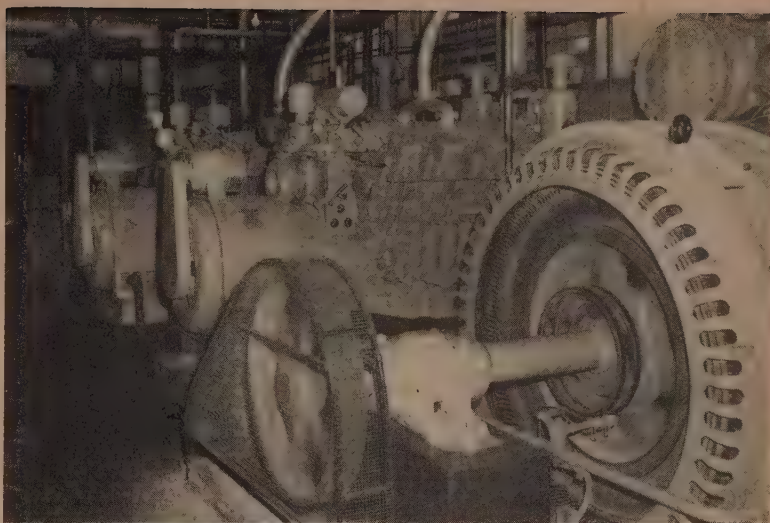
For operating power, the Mazatlan freezer has five Fairbanks Morse diesels, ranging from 60- to 100-hp. Compressors are three Vilter, 7½ by 7½ and one Vilter, 9½ by 9½. R. E. Manns engineered the plant. It has a daily freezing capacity of 14 tons and makes 25 tons of ice. During the 1949-50 season it produced over 2,500,000 lbs. of shrimp. For this season capacity was to be stepped up to 18 tons daily.

At Tepic, compressors are seven 3½ by 3½. Power is by an 82-hp. "Caterpillar" diesel. This plant was put into service the fleet of small trawlers operating out of the fertile San Blas and vicinity fishing grounds. A feature of Noroeste operations last season was production of 120,000 lbs. of "under 10" shrimp, all caught south of Mazatlan.

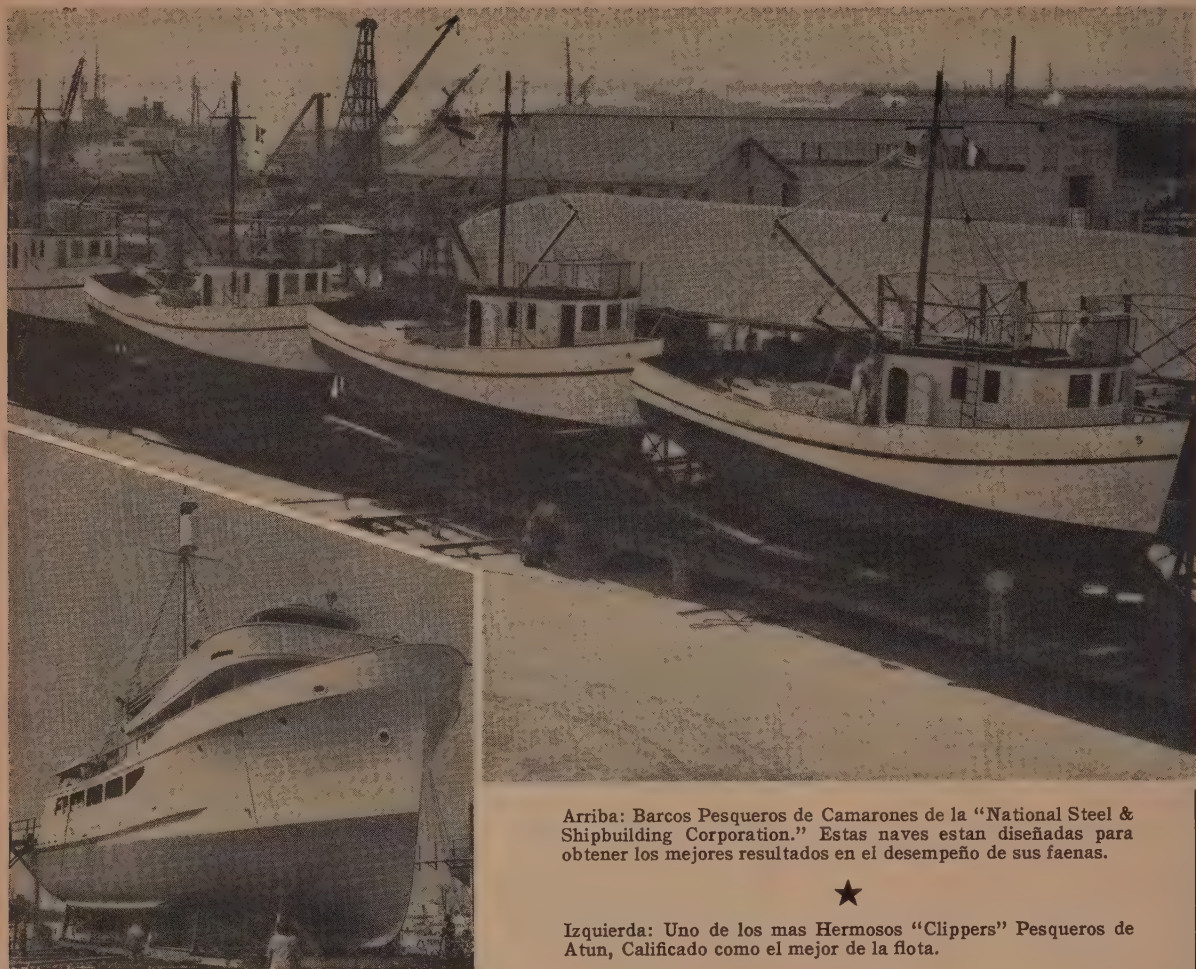
Hielera y Congeladora del Golfo de Cortez, Guaymas

Hielera y Congeladora del Golfo de Cortez, S.A., is a brand new Guaymas freezer, located on the other side of Guaymas bay from "shrimp row." The owner is Alberto Tirado, J., formerly head of Union de Armadores del Pacifico, Sonora's largest trawler association.

Brands are "El Conquistador" and "El Cortez," and U. S. importer is Leonard A. Dunagan Company, Glendale, Calif. The four 7 by 7 compressors and a 6½ by 5 booster,



These are enginerooms of the kind found in Mexico's Pacific shrimp freezing industry. Most power is diesel-electric, and compressors and installations are of the most modern and efficient type. The upper view shows a portion of the Pesquera de Topolobampo power plant, which produces 1,000 hp. On the right is the dynamo of a Fairbanks-Morse diesel-generator set, followed by a pair of "Caterpillar" diesel generators. Middle photograph shows the compressors in the plant of Pesquera E Industrializadora de Guaymas. The lower picture shows Walter Manns, chief engineer, in the engineroom of the Marine Products Co., San Diego, whose refrigeration installation totals 212 tons, principally provided by Vilter compressors.



Arriba: Barcos Pesqueros de Camarones de la "National Steel & Shipbuilding Corporation." Estas naves estan diseñadas para obtener los mejores resultados en el desempeño de sus faenas.



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were installed by Occidental Electric Company, Nogales, Ariz. The plant has three sharp freezers and a large cold storage room. Power is from a 400-hp. Atlas Imperial diesel, with a 75-kw. Fairbanks Morse generator. Manager of the plant is Rafael Munoz.

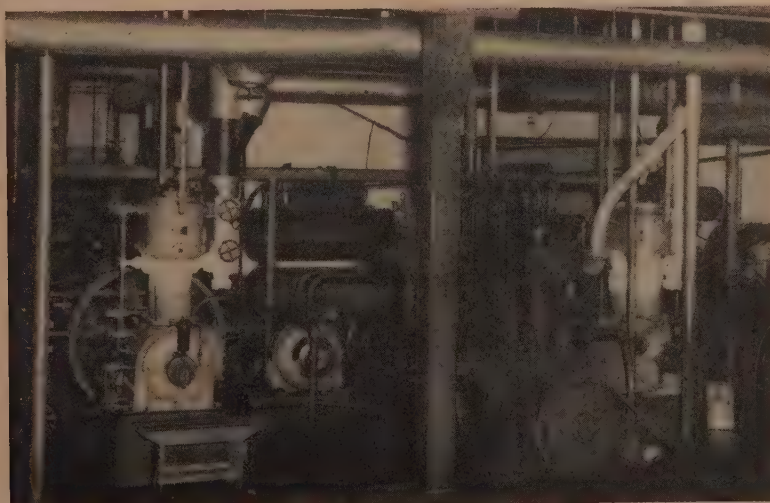
Maritima y Pesquera S. C. L. "Mar Bermejo," Santa Rosalia

"Mar Bermejo" started operations in 1949, getting its shrimp from the other side of the Gulf of California, freezing at Santa Rosalia; then transporting again across the Gulf of Guaymas for shipment. Brands are "Astro" and "Santa Rosalia" and Stamm-Schulman Company is the U. S. importer.

Principals are executives of the French copper-mining interests of Santa Rosalia: Pierre Mahieuz, president; Victor Mussio, general manager; Juan E. Rigollot, manager; Francisco L. Garcia, secretary. Operated in connection is a freezer-ship, *Corrigan IV*, Kohlenberger refrigerated.

The freezer, which is being much enlarged for this season, was designed and engineered by Kohlenberger, in association with Carlos Unger Ferreira, Mexico City consulting engineer. When new additions are completed this fall, the freezer will have four 6 by 6 Kohlenberger compressors; one 5 by 5 and a new air blast system in the freezing room. At present the daily capacity is 12 tons; and this is being increased. Cold storage rooms have 150,000 lbs. capacity. A new ice-making system is also being installed.

Part of the Productos Marinos de Guaymas engine room, showing two Kohlenberger compressors, Atlas diesel-driven. These two machines, 7½ by 7½, were installed as original freezing equipment in 1940, and are still in operation in this earliest of Mexico's Pacific Shrimp freezing establishments.



Refrigeradora del Noroeste, Mazatlan, after five years of operation is considered one of the west coast's most efficient shrimp freezers. Here the main refrigeration building is shown, but with the powerhouse at the right out of picture. It was designed by Carlos Unger Ferreira; equipment supplied by R. E. Manns Company. Note that, as in the case of so many shrimp plants in Mexico, the building is of metal.

Here, at Santa Rosalia, the first semi-automatic washing, grading and packing system has been installed, designed by Carlos Unger Ferreira and built by Brogdex Company. It consists of a 2,500-lb. per hour washing machine, galvanized, with a wide mesh belt conveyor. Grading is done from plastic-covered rubber belts with stainless steel guides. Bins for graded shrimp as well as weighing-packing tables are of stainless steel.

Here is how it works. Shrimp pass onto a conveyor where they are washed, then conveyor-elevated 14', passing onto the grading and sizing central conveyor. On each side of this is the grader platform, where women work, placing the various counts on covered rubber belts, which guide the product to the next operation.

On each side of the extended belt are a series of three openings. The graded shrimp, according to count, drop into these openings and into cartons resting on weighing machines. From there the cartons pass at right angles to the final packing tables, where the shrimp is smoothed out in the carton; thence by conveyor to the freezing rooms. Wrapping machines are two—both Hayssens.

Corrigan IV is powered with Cooper-Bessemer diesels and has a 165-hp. General Motors auxiliary diesel. Refrigeration is by two 5 by 5 Kohlenberger compressors, and the whole system is devised for automatic operation from 50 degrees, F., to 10 minus. The ship will be used as both freezer and transporter.

Mariscos Congelados del Pacifico

Mariscos Congelados del Pacifico, Guaymas, was recently acquired by Ramon Dias Perez and associates from Louis Camillo and Alfredo Cano. Marine Products Co. is U. S. importer.

Engineered by R. E. Manns Company, the plant has 6-10 daily capacity; has two Frick 7 by 7, by 50-hp. U. S. motors; one 7 by 7 Worthington by 50-hp.; one 6-HA-6 Worthington booster by 40-hp. There is a 100-kw. General Motors generating set; has 15-ton ice-making capacity.

Marine Products Company, San Diego

Marine Products Company, although not a Mexican concern, nevertheless freezes a large quantity of shrimp annually from the Gulf of California at San Diego, and

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has one of the largest freezing plants connected with the industry.

Now owned by Wilbur-Ellis Company, but continuing to maintain separate identity under direction of the president and founder Lucian K. Small, Marine Products has, during the past decade, installed this freezing and cold storage plant 17 miles from the international border.

Chief engineer at the plant is Walter Manns, who has built it up to 212 tons of refrigeration at operating temperatures. It has two freezer rooms at zero to 18 minus; one sharp freezer to 35 degrees minus, for freezing the 12-oz. "Ocean Garden" package. In connection, a 12-oz. packing room is operated.

Freezer equipment: Vilters, 6½ by 6½, 7½ by 7½, 5½ by 5½ and a 12 by 22 Vilter horizontal duplex, steam-driven, for standby; also a 6 by 6. In the cold storage rooms are air diffusers, full-flooded system. The other cold storage room has ceiling coils with Manns full-flood coils controlled by Vilter floats. The entire refrigeration system is two-stage. There is storage space for 15,000 master cartons of the 5-lb. carton, each with a gross weight of 70 lbs.

Latest equipment is a 115-ton capacity evaporative condenser, installed on the roof.

Executives of Marine Products, in addition to L. K. Small, are Jack Willis, coordinator between the company and Wilbur-Ellis; Gil Kuhn, assistant to the president. Ernesto Kosterlistky is export manager.

Refrigeradora de Salina Cruz, S. A., Salina Cruz, Oxa.

Refrigeradora de Salina Cruz, a new freezer going into operation with the 1950-51 season, marks the extension of the Mexican Pacific shrimp fishery beyond San Blas to the southern extreme of the Mexican west coast. Roberto Avendano is owner and general manager.

The plant is located in the *Puerto Libre*—free zone—of the port of Salina Cruz, in the Gulf of Tehuantepec. It will have a daily capacity of four tons. At the end of July it was understood the U. S. importer would be Stamm-Schulman Company; the brand "Tehuantepec," in 5-lb. cartons.

Engineered by Carlos Unger Ferreira, the freezer will have a 7 by 7 compressor, driven by a 50-hp. motor. This works in conjunction with a shelf-type freezer and air blast.



This modern shrimp canning plant was recently installed at Pesquera de Topolobampo, S. A., packing the "Guaymex" brands in the No. 1 EO can, with sealing machine by Continental Can Co. The plant last season canned around 15,000 cases and is for Mexican domestic consumption. The entire plant and the building of steel, was supplied as a package by Harry Reed, United Sales & Engineering Company, Los Angeles. It employs 20 and cans odd sizes from the freezer packing tables.

Compressor for a 12-ton daily ice-making plant is by a 6 by 6, by 40-hp. Power comes from a 1,250-kw. generating plant, supplied by the Free Port authorities.

Productos Congelados de Santa Clara, El Golfo

Productos Congelados de Santa Clara, S. A., was put into operation just as the 1949-50 season closed. Principals are General A. L. Rodriguez; Juan Sanchez, general manager; Francisco A. Morales, Jr., Jose Gutierrez and A. L. Verdugo. Importer is Marine Products Company. Brand: "Ocean Garden."

Housed in a building of steel framing and aluminum, 40' by 120', the refrigeration plant was engineered and installed by R. E. Manns Company.

Machinery consists of: two 6½ by 6½ Vilters each driven by a D-318

"Caterpillar" diesel, V-belt drive; one Vilter D-315, 4-cyl. machine; Vilter 6-ton vertical Pakicer. Freezer room cooled by vertical coils, piping, with axial flow air circulation to 20 degrees minus. Freezer room has capacity of five tons daily and cold storage can hold three carloads of frozen products. There is a 50-ton daily ice-making plant in connection, operated by two 8 by 8 and one 5 by 5 York compressors.

There are two General Electric 15-kw., 230 volt, d.c. generators, V-belted from the larger "Caterpillars." This plant will also experiment with filleting and freezing 5-lb. blocks of totuava—Mexican sea bass—for U. S. distribution.

Because of extremes in tides, up to 22', the dock serving this plant, located at the extreme northern end of the Gulf of California, had to be built 1,500' long. A large fleet of trawlers serves the freezer.

Mexico's Pacific Shrimp Canneries

Cannery	Location	Brands
Pesquera E Industrializadora de Guaymas, S. A.	Guaymas, Sonora	"Ferreira"
Pesquera de Topolobampo, S. de R. L.	Topolobampo, Sin.	"Guaymex"
Empacadora de Conservas de Los Mochis, S. A.	Los Mochis, Sin.	"El Fuente"
Empacadora Calidad, S. A.	Cullican, Sin.	"Calidad"
Empacadora de Escuinapa, S. A.	Escuinapa, Sin.	"Belmar"
		"Excelsior"
		"Myrsa"



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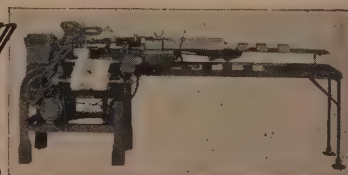
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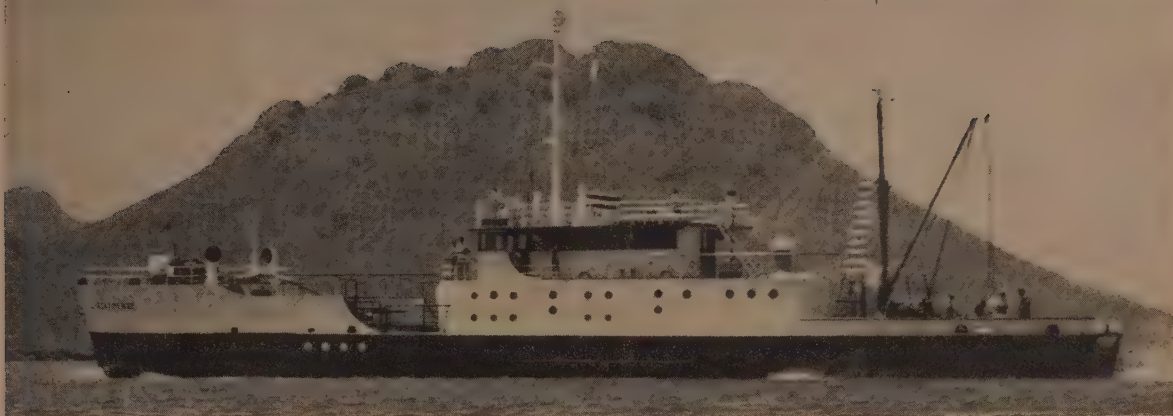
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El Guaymense, largest freezer ship along Mexico's west coast, operated by Pesquera E Industrializadora de Guaymas. The 160' steel ship is completely fitted as a modern freezer, by her Frick and Carrier systems can freeze 16,000 lbs. daily and store 100,000 lbs. Propulsion and auxiliary power is General Motors and the ship has every latest operational and navigational device.

FREEZER SHIPS

IN MEXICO'S MULTIPLYING PACIFIC SHRIMP INDUSTRY

SHRIMP freezer vessels along Mexico's west coast have been in use for some years on Mexico's Pacific coast, but without making important contribution to the fishery. In 1946 Capt. Diego Martinez Corona and the Gayou brothers put the 135-hp. Washington-powered *Admiral Brenton* in service, with a coil freezer system installed by R. E. Manns Company. The vessel is 65' long and has a 40-hp. "Caterpillar" auxiliary.

Later, this company converted the former San Pedro seiner *Western Spirit*, calling her *Martha Aurora*. This vessel was destroyed by fire at Guaymas in June of this year.

In 1949, Productos Congelados, S. A. Guaymas, converted a 115' U. S. navy vessel as a combination trawler-freezer, calling her *Mahoning*. Baker refrigeration was engineered by Ben Duncan, the system consisting of a 5 by 4, and two 5½ by 5½ Baker compressors. Plate-type freezers could produce temperatures as low as 50 degrees, minus. Propulsion power is a pair of D17000 "Caterpillar" diesels, with 2:1 Twin Disc reduction gears.

For the 1950-51 season the first major freezer enters service, with headquarters at Guaymas. This is *El Guaymense*, owned by Pesquera E Industrializadora de Guaymas, S. A. This 159' 6" steel vessel was outfitted at Louisiana as a shrimp freezer, and has ample power both

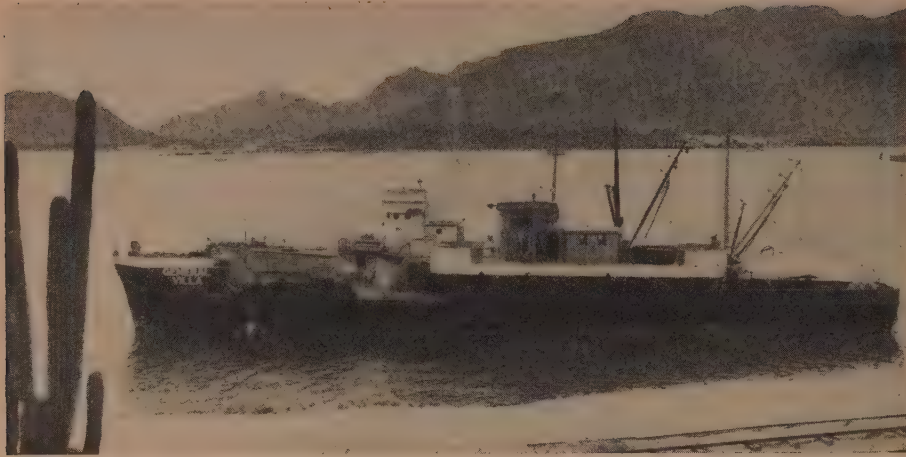
for propulsion, auxiliary needs and refrigeration.

El Guaymense will roam the entire 2,000-mile coastline from Rocky Point to Salina Cruz, following

wherever the shrimp are concentrated. Aboard will be produced the "Rocky Point" brand, a 5-lb. "random" pack, in which the shrimp are placed in the carton before freezing.

Here is one of the floating freezers in Mexico's fishery, *Mahoning*, 115' freezer vessel, operated along the 2,000-mile Mexican Pacific Shrimp fishery by Productos Congelados, S. A., Guaymas, and producing "Southern Seas" shrimp, distributed in this country by Wilbur-Ellis Co. Propelled by a pair of D-17000 "Caterpillar" diesels with 2:1 Twin Disc gears, the vessel has a Baker refrigeration system, and employs plate-type freezers. The lower photo shows two of three Baker compressors in the *Mahoning*, which provide for the freezing system temperatures as low as minus 50 degrees F.





General Villa, shrimp freezer vessel to be operated during the 1950-51 season by Fomento Maritimo, S.A., out of Guaymas. Has three sharp-freezing rooms at 20 degrees minus; and a cold storage room at zero. Refrigeration is by three 7½-ton compressors. System will also make six tons, ice daily and store 30 tons. Vessel is also used as a trawler. The 5-lb. ice block will be produced aboard and loaded directly in refrigerated cars on arrival at the home port.

For refrigeration the vessel has two 6-cyl. compressors. There are four other refrigeration units for the storage hold. For freezing there are two plate units. Vessel can freeze 16,000 lbs. in 24 hours, and has cold storage capacity of 100,000 lbs.

For the random pack, Fibreboard Products, Inc., designed a special two-piece carton for plate freezing, the glaze being secured by pressure from both top and bottom.

The vessel is equipped for trawling with a Chrysler marine engine powering the trawl winch. For navigational and operational service there are two 20-watt and two 50-watt Radiomarine phones; a Sperry Mark IV gyro compass with two repeaters; two Sperry magnetic compasses; radar and two Bludworth depth finders.

Propulsion is by twin General Motors diesel quads, totalling 1,800-hp. Auxiliaries consist of two Gen-

eral Motors generating sets; and a 30-kva. Buda diesel generator.

At the "Mar Bermejo" plant at Santa Rosalia, Lower California, across the Gulf of California from Guaymas, an important development is taking place in the conversion of the Cooper Bessemer - powered freighter *Corrigan IV*.

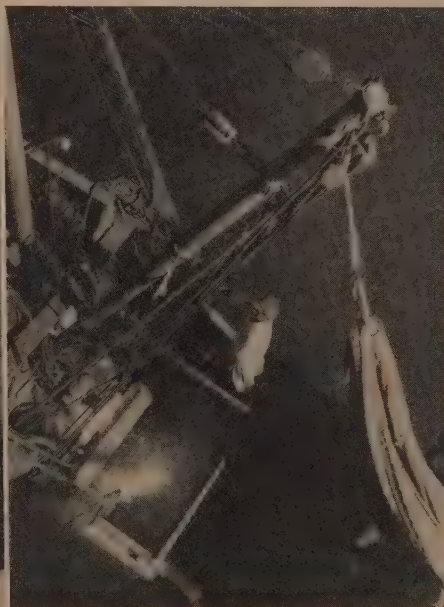
Kohlenberger Engineering Corporation is supplying sharp-freezing equipment designed for automatic operation at from 50 to 10 degrees below zero. Two 5 by 5 Kohlenberger compressors, driven by Series 671 General Motors diesel, will power the refrigeration plant. This vessel is to be used both as a freezer and transporter.

Santa Teresa is a sharp-freezer, a converted navy vessel by Harbor Boat Building Company, Terminal Island, owned by Hacienda de Redo at Eldorado, Sinaloa. Another vessel which will probably be equipped

with sharp-freezing for operations on the high seas is the *General Villa*, a converted U. S. navy vessel, belonging to Fomento Maritimo, Guaymas.

There are several advantages in the employment of freezer-motherships in this 2,000-mile long fishery. Quick movement of fleets of trawlers often becomes necessary. Shrimp operations may suddenly fail temporarily in the northern section, and be brisk south of Mazatlan.

Motherships can take care of small fleets at distances from the home port; can replenish fuel and supplies, thus permitting more profitable trawler-fleet operations. Most important of all, motherships can follow to the source of immediate supply, and assure a high quality of product by sharp-freezing at point of catching. Further, motherships are useful in exploration and uncovering new shrimp beds.



It takes ice to keep shrimp -- on the fishing vessel, in the reefer rail car. On the left, pre-icing a rail car at Guaymas. This is done 24 hours before loading; a mechanical device from the car wheels operates fans, and there are frequent re-icings before long distance destinations are reached. The industry shipped over 700 cars last season, in addition to large use of refrigerated trucks.

More than 130,000 tons of ice are needed annually for the shrimp industry of the Gulf of California. Right photo shows crushed ice being blown into a trawler. The ratio of shrimp to crushed ice in a trawler is around 1-to-3.

00 "St. Peter" 00

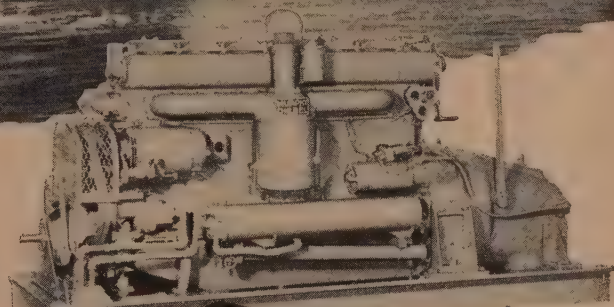


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In the vast network of shallow bays and esteros from Guaymas to San Blas, fishermen catch shrimp from dugout canoes, made from a tree called "Alamo," a soft wood with no grain. Trawling is illegal in the bays and shrimp are caught with cast nets, as shown by this expert in action in San Carlos Bay, Sinaloa. There are probably close to a thousand canoes in operation; Pesquera de Topolobampo having 400. The net, with closely-spaced lead weights around the edge, is thrown flat over the surface, to slowly sink as the leads bunch, trapping the milling shrimp. Then the canoe moves carefully over the net; it is caught at the center and hauled out. There is a growing tendency to use outboard motors. Concerns like Topolobampo maintain a fleet of fast tenders to rendezvous with the canoes and take off the catch. All bay shrimp arrive at the freezer with heads on.

SHRIMP FISHING

RESERVED BY LAW TO FISHERMEN'S COOPERATIVES

RIGHT to fish for shrimp along Mexico's west coast belongs, by law, to the cooperativas, or labor groups. There are between 35 and 40 such groups along the coast, each with a minimum of 21 members. Total number of fishermen employed is around 2,000, and they earn up to 1,000 pesos a month.

These groups are not always trawler owners, although there are some cooperativas operating their own vessels, from two to seven boats as a rule. One old established cooperativa has 1,000,000 pesos invested in vessels and equipment. Each group is fully incorporated. There are two full sets of officers, in fact:

one is administrative; the other "vigilance."

To have shrimp delivered to his plant, the freezer operator must make a contract with a cooperativa, and he must be a Mexican. He can make contracts with more than one group. A boat-owner can contract with a cooperativa and sell to a plant. The contractor may supply the vessel, trawl, food, fuel and supplies with cooperativa furnishing only the captain and fishermen. Raw prices are determined by general market conditions, except that there is a base price agreed upon.

The cooperativa collects the money; a certain amount is retained for

organization expenses; some of the money is held back until the end of the season; and the balance distributed between captain and crew.

The boat owners have their own associations, the largest being Union de Armadores del Pacifico at Guaymas, which has over 150 vessels registered, and of which Ernesto De Cima is president and Victor Vielle-dent, treasurer and manager.

Shrimp Operators' Association

The freezer plants have an association known as Asociacion de Industrias de Congelacion y Enbaque de Productos Marinos. Silvano

Big shrimp, big catches characterize Mexico's Pacific shrimp fishery. They do not average as big as this, of course, but these pictures show what can happen in this rich fishery. On the left, a great bag of shrimp comes aboard the trawler. On the right, the lacing of the bag have been cut to spill the catch on the deck for sorting and heading. Note the tight-packed shrimp, the virtual absence of other creatures in the catch.



Perez Ramos, head of Fomento Marítimo, S. A., Guaymas, is president; Hector Ferreira, administrador-director, Pesquera E Industrializadora de Guaymas, S. A., vice-president; Alfredo Cano, B., secretary; and Hernando De Cima, president, Productos Congelados, S. A., secretary.

All plants from Guaymas to Ma-

zatlan are included, and the interest of this association is to protect the industry, foster the health laws of Mexico, and unify standards of freezing procedures and packaging to meet the high demands of U.S. food regulations.

The Mexican Pacific shrimp industry and fishery is also incorporated within the Mexican Na-

tional Chamber of Commerce, with semi-official recognition. All plants by law are now required to join the National Chamber of the Fishing Industry, which has headquarters in Mexico City.

The organization was formed in 1949; reorganized in February, 1950, when control passed into hands of the West Coast fishery. General Ramos is also president of this association; Francisco Sanchez Gonzales, vice-president; Manuel Zepe-da Garcia, secretary, and Ramon Llerena, treasurer. Board of directors includes:

Pedro L. Pinzon, Refrigeradora del Noroeste, Mazatlan; Jose G. Gutierrez, Pesquera de Topolobampo; Ernesto De Cima, Productos Congelados; Victor Vielledent, Refrigeradora Eldorado; Arturo De Cima; Pesquera de Mazatlan; Daniel Madero, Manuel Castello, Jose Reyes, Martin Temple, Porfirio Hernandez, Eduardo Baz. Manager is Felipe Ferrer Trujegue.

Above is the sponsoring organization of Instituto de Pesca del Pacifico, the research body. In addition to liberal contributions by the freezer association, each boat owner or company from Guaymas to Rocky Point pays 10 pesos per ton delivered. Cooperativas at Guaymas during the 1949-50 season began a contribution of 10 pesos monthly also.

Macapule is an example of modern Mexican shrimper, one of five 54' by 18' all-steel trawlers with 85-hp. diesels and Onan light plants. She was photographed recently by PACIFIC FISHERMAN in San Carlos Bay, Sinaloa, enroute to open waters from Pesquera de Topolobampo. Vessels were designed and built by National Steel & Shipbuilding Corporation, San Diego, which is now engaged in building its third series of steel trawlers for the Mexican shrimp fishery.



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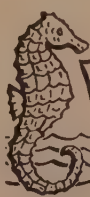
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Research Seeks Scientific Facts For Perpetuation of Shrimp Resource

MEXICO'S Pacific Shrimp fishery is slowly groping toward scientific knowledge of the shrimp life cycle and other biological data which must finally be learned before the fishery is on a firm footing as to safe annual catch, based on the doctrine of sustained yield and conservation under the principle of wise use.

With new shrimp areas being discovered and given to the trawl, the 1949-50 season's yield of 21,000,000 lbs. cannot be considered a yardstick by which to measure succeeding seasons. No one, including the scientists, now can estimate what the fishery can produce and yet continue to sustain itself.

Finally to produce the scientific information so vital to continuing prosperity, the industry has the Instituto de Pesca del Pacifico, of which Hector Ferreira is president and Rene Nunez, director. Guillermo Veyro is administrative manager.

The Institute, properly financed to assure a long-range research program, has been working in cooperation with Milton Lindner, head of the U. S. Fishery Mission to Mexico, in a series of tagging and research cruises with the scientific vessel *Sharonah*. It will be several years before Director Nunez and his staff have sufficient biological facts on which sound conservation rules can be based.

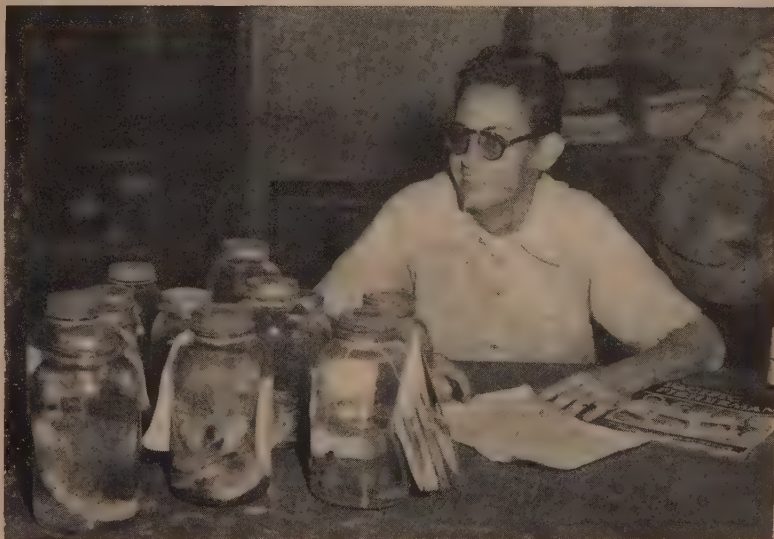
The data set down here are not yet scientifically proven, but, according to Mr. Nunez, are believed to be true.

First, the seasons:

There is no scientific basis for setting the season for cast-net fishing in the bays and esteros to open August 25 and close February 15, or for outside waters opening October 1 and closing July 31. These dates, however, probably will remain in force until more exact data are obtained. Power trawling is not permitted in bays, and all bay catches are made with cast nets from canoes.

Three Great Shrimp Areas

Fishing areas are divided into three sections: *North* area extends from San Felipe, Lower California, around the head of the Gulf to mouth of the Colorado river, and



Rene Nunez, U.S.-trained biologist, research director of the Instituto de Pesca del Pacifico, Guaymas, who is conducting a long-range research program on the life cycle of Mexico's Pacific shrimp to determine the annual safe yield. Note the great size of shrimp in bottles, taken last January in deep-water trawling experiments in the Gulf of California. On the desk is a study of the Pacific fisheries of Mexico made by PACIFIC FISHERMAN in 1946.

then to Rocky Point, Sonora. North of San Felipe is an estero called *Ometepec*, believed to be a feeding

and spawning area. The main feeding and growing location is thought to be at the mouth of the Colorado river.

Research vessel *Sharonah* of the Instituto de Pesca del Pacifico, Guaymas. She is 51' long, powered with a 225-hp. General Motors diesel, and has a Bendix Bantam depth recorder and Onan light plant.



What was formerly the *Southern*, must now be the *Middle* section, because of extension of the fishery south of Salina Cruz. This area starts at Guaymas and continues on down to San Blas, Sinaloa, a distance of some 700 miles.

South district, below Mazatlan there are a series of large bays with narrow entrances. The natives for countless years have closed up many of these openings, trapping the shrimp inside, and then scooping them out by wading into the water.

This shrimp has always been dried and constitutes a main source of food supply, but with serious economic waste. It is estimated that the 1,500 tons of shrimp dried in this area in 1949 would have produced 6,000 tons of green shrimp if permitted to enter open water and mature.

To some extent this condition is being changed, and may eventually be eliminated by law. However, to achieve this desired conservation, it

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will be necessary to substitute another form of livelihood for the natives, such as developing new trawling fleets to employ them. This is now being done.

Opening for the 1950-51 season is the 300-mile coastline from Salina Cruz, Gulf of Tehautepec to the Guatamala border. This must now be called the Southern section.

Life History In Brief

It is believed that the shrimp attains maturity in from 12 to 14 months. The female spawns from 300,000 to half a million eggs in open water from 5 to 10 fathoms in depth. Spawning season appears to be from March to September. Newly spawned eggs are transparent and sink to the bottom, where they hatch in about half a day. The tiny larvae, moved by current, drift inshore and into one of the shallow bays, where they pass through 11 stages. As the rainy season — July to October — arrives, the shrimp has now become a juvenile. Run-off from the land and rivers decreases salinity and the juvenile shrimp moves out into middle of the bay, where he is caught by cast nets from canoe fishermen. Thus the shrimp are of the large counts (small size) during the early part of the season, August and September.

Changing salinity and colder water forces the growing shrimp out into open water. By the time it reaches five fathoms, or even less, it has grown into a mature shrimp, prepared to propagate and repeat the cycle.

The shrimp only spawns once, but it does not die immediately after. It moves on into deeper water to finish growth. At 25 fathoms, the deepest at which trawling is now carried on commercially, the shrimp is found 8" to 10" long. As a result of trawling experiments by the *Sharona*, shrimp have been taken 12" to 14" long, at 65 fathoms.

Penaeus stylirostris ("Blue") is the most important and found in largest quantity. There are two other varieties: *Penaeus Vannanici* ("Red"), and *Penaeus californiensis* ("Yellow footed one"). The "Blue" accounts for 90% of the catch, although all three are found mixed together. These species are found all the way down the west coast of Central America to Panama.

As a result of recent deep-water trawling by Director Nunez, who makes his headquarters at Guaymas, it was found that at 65 fath-



One of two Hayssen wrapping machines at "Mar Bermejo" shrimp packing plant at Santa Rosalia, Lower California. These machines receive the 5-lb. cartons for overwrapping from the only semi-automatic packing operation in the Mexican Pacific shrimp industry.

oms the "Yellow" get as big as the "Blue"; and that all three species are found at this depth.

In January of this year the *Sharona* duplicated a research and tagging expedition by Milton Lindner in 1945, at Guaymas, Yaqui River and Santa Barbara, a distance halfway between Guaymas and Topolobampo. On the latest trip 1,700 shrimp were disc-tagged and released. In two months following, fishermen returned 75 to 100 of them.

By such tagging and other experiments, the Institute hopes to determine the general movements and migration; to observe growth and judge the effects and intensity of fishing.

One fact seems fully determined: although shrimp of large size are caught in deeper waters, apparently they have outlived their natural usefulness. The shellfish have propagated once and survive only to take on size, and thereafter perform no useful function in propagation.

Another fact seems to be that in the northern section shrimp are a pinkish-white, mainly white with some pink coloration. In the lower sections of the fishery shrimp are pearl gray and even darker.

There are unanswered questions. For example, why are shrimp of "under 15" count caught in the bays in vicinity of Topolobampo?

Do these shrimp live and mature in these enormous shallow water areas, or do they go in and out at will? The scientist hasn't answered that as yet.

The Institute was started September, 1946, and finally got equipment to start working in early 1949. It is financed from three sources: by the shrimp freezer companies, boat owners and cooperatives; by federal government subsidy; and by the Bank of Mexico. Its program is amply financed for the future and when its recommendations for conservation laws are announced, these will probably be accepted by the Mexican government.

Mexico's Pacific Shrimp Freezer Vessels

Company	Vessel	Headquarters
Pesquera E Industrializadora de Guaymas, S. A.	<i>El Guaymense</i>	Guaymas, Sonora
Cia. de Productos Congelados, S. A.	<i>Mahoning</i>	Guaymas, Sonora
Congeladores de Productos En Atla Mar, S. A.	<i>Admiral Brenton</i>	Guaymas, Sonora
Fomento Maritimo, S. A.	<i>General Villa</i>	Guaymas, Sonora
Hacienda de Redo	<i>Santa Teresa</i>	Eldorado, Sinaloa
"Mar Bermejo"	<i>Corrigan IV</i>	Santa Rosalia, B.C.

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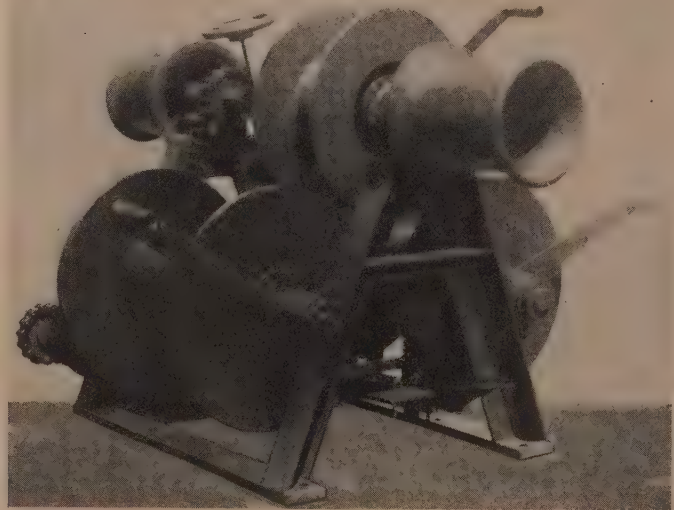
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Marine supply stores and stocks are modern in Mexico. The upper photo shows a display of International marine paints at Proveedora de Buques, ship chandlers at Guaymas. International's "Super-Trop 2" bottom paint is widely used for wooden hulls in the shrimp fleet. At right is General Manager Gabriel Milhe, Jr.

A typical "Guaymas" shrimp trawl under construction in the net loft at Proveedora de Buques, Guaymas, made from Ederer webbing and using Wickwire steel rope.

Shrimp Industry of Mexico Proves an Important Buyer of U. S. Manufactured Goods

MEXICO'S Pacific shrimp fishery has become important to U. S. manufacturers and suppliers of marine equipment and services, the latter particularly in Southern California; and also to distributors and dealers below the international border for U. S. lines of engines, hardware, paint, netting, electronics and many other items to keep this 450-vessel trawler fleet and the shore plants it serves operating effectively.

More and more Mexican producers' and fleet operators are looking across the border for their needs and service, one of the principal reasons being the confidence that has been built up during the past 10 years between the two nations.

Mexicans like doing business in this country. They have come to know the equipment and engineering skills they purchased over here are backed up with square-dealing and follow-up service. Along the Mexican west coast, too, distributors for U. S. equipment are continually increasing their lines and services.

Southern California is the head-

This miniature model of a wingless trawl shows one of the types widely used in Mexico's Pacific shrimp fishery. Adapted from an earlier net, this model is now known along the Mexican coast as the Nibecker net. It is made at Guadalajara of Gold Medal netting manufactured by The Linen Thread Co. In the photograph the headrope is toward the camera. Note the virtual absence of wings, the considerable height of the mouth, and the fact that the headrope runs ahead of the footrope to only a small degree.



quarters for this trade. Adjacent as it is to the source of shrimp supply, receiving the larger part of tonnage, it also does the major share of business. Suppliers like Drake & Bullen, Nuttall-Styris Company at San Diego; Marine Hardware Company, Seaside Supply Stores and others at San Pedro; Charles E. Smith, Los Angeles, etc., are finding their lines continually increasing in demand.

Shepherd Diesel Marine, Southern California distributors for such well known lines as "Caterpillar" diesels, Radiomarine electronics, Bendix depth recorders, Stroudberg winches, are important factors in equipping the trawler fleets. Roy Wilson, San Diego manager, is a familiar figure from Rocky Point to Mazatlan.

Southern Californians keenly observe the trends and developments along the 2,000-mile fishing coast, coming up with new techniques and machinery to provide more efficient operation. For example, Whitey Machine Co., San Pedro, has developed a new type of trawling winch, finding favor down there and distributed by Seaside Supply Co.

Marine Hardware Company has long been a large supplier of every type of marine equipment, among their items being American Marine paints, Danforth anchors, Linen

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Thread webbing. Charles E. Smith sells such items as Federal propellers, Westinghouse micarta bearings; Maxim silencers; Sutton electric pumps; Sherwood bronze pumps, Jabsco pumps and other standard items. "Net-Life" preservative for trawling and casting nets, by Techkote Company, is lengthening the working life of this important gear.

Below the border, at Guaymas, is the Mexican west coast's largest ship chandler, Proveedora de Buques, S. de R. L., under the able management of Gabriel Milhe, Jr., a man with 20 years' experience in the Pacific fisheries of Mexico.

This concern, which plans a branch at Mazatlan this year, is distributor for Ederer netting, Atlas Imperial diesels; is a sub-agent for "Caterpillar" diesels. Also distributes International paints, General Petroleum and other familiar lines of U. S. marine equipment and supplies.

International's "Super-Trop 2" has proved very successful bottom paint for wooden hulls, and is used extensively. Proveedora has long specialized in the making of its "Guaymas" trawl nets, from Ederer webbing and using Wickwire steel rope. It has a special plant making these nets, which are widely used in the fishery. Patricio Nieves R. Sucs., Hermosillo distributes several lines of equipment, including the shrimp-handling wicker baskets, cork insulation, etc.

At Guadalajara, Howard A. Nibecker has developed for the fishery a wingless net from the original "Santos" gear, but which is known, particularly in the Mazatlan area, where it is adaptable to the shallow water fishing there, as the "Nibecker" net. He is representative along the west coast for the Linen Thread Company, makers of "Gold Medal" webbing.

Onan light plants and generators are extensively used in the fishery. D. W. Onan & Sons, Inc., have distributors Commercial del Noroeste, S. A. Culican, Sin., Hermosillo Mercantil, S. A., Hermosillo, Son., Fernando Barragan, Guaymas, and others, as well as Drake & Bullen, San Diego.

Universal Motor Company enjoys good business along the west coast, one of its principal distributors being Proveedora de Buques, Guaymas, and at Mazatlan, Ferreteria del Pacifico, S. A.

Small diesel light and generating plants are finding their way into the fleets, one being the line of Crofton Diesel Engine Company, San Diego.



Buen Vecino, "Good Neighbor," represents a new series of steel trawlers for the Mexican Pacific shrimp fishery, designed by Drake & Bullen, San Diego, and are now being built at two Tacoma yards, Tacoma Boat Building Company and Birchfield Boiler, for sale and delivery by Drake & Bullen to Mexican fleet operators. The trawlers are 54' by 17' — some will be increased to 65' by 18'. Power is a 3-cyl., 90-hp., Washington diesel; auxiliary is 2-cyl. Hercules generator and compressor; Northern Dragzer winch; 3/4" Monel metal tail shaft, with bronze propeller. For large trawlers 120-hp. Washington propulsion will be used.

Modern Vessels Trawl In Mexico's Modern Fishery

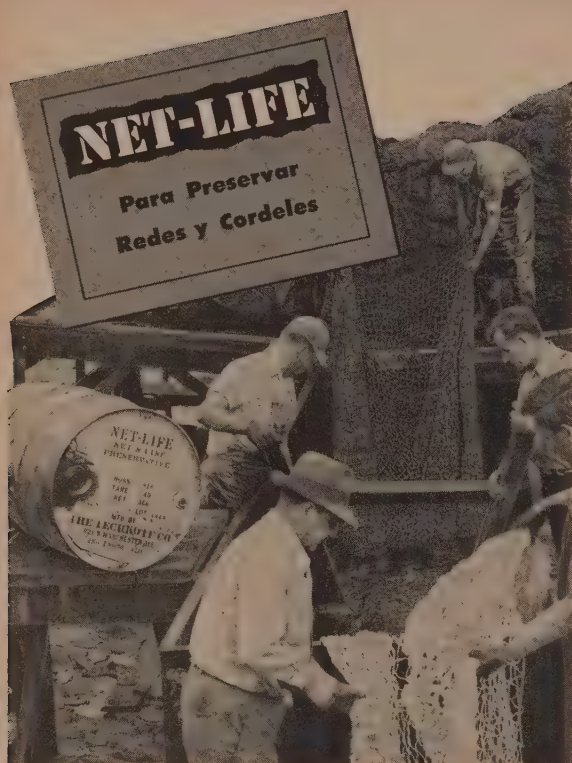
SHIPYARDS from Tacoma to San Diego; and down the entire west coast of Mexico this summer have new trawlers, both steel and wood, being hurried to completion for Mexico's Pacific shrimp fishery. In practically every case the vessels will be equipped

with U. S. engines, machinery and electronics.

Although an accurate check was not possible, it was estimated that the west coast of Mexico yards were adding 36 to 40 new trawlers to the 450-500 vessel fleet. Tacoma Boat Building Company has completed a

Mexico's Pacific shrimp industry is a modern business in all respects. Use of radiotelephone between the trawler fleets and shore stations located at freezers from the northern waters of the Gulf of California to below Mazatlan, is widespread. Here Antonio Zubiga, fleet manager for Pesquera Industrializadora, Guaymas, left, contacts his trawlers. By arrangement, each freezer is allocated certain hours of the day to communicate with his vessels. Here is a 75-watt RCA set at the plant.





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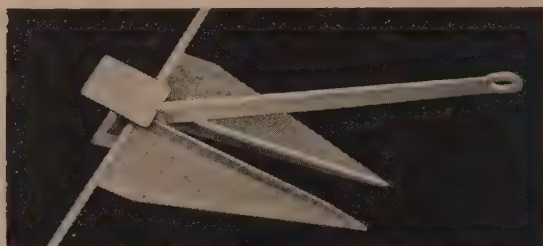
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Telephone Terminal 2-7505

54' by 17' steel, 90-hp. Washington diesel-powered trawler.

Name of the trawler is *Buen Vecino*—"Good Neighbor"—and it was built to the design of and engineered by Drake & Bullen, marine equipment dealers and Mexican suppliers, San Diego. This firm had two more of the same length under construction at Birchfield Boiler yard, Tacoma. It has plans to produce these steel trawlers in quantity up to 65' in length, with optional power and equipment.

Another yard with a large shrimp-trawler program for the immediate future is National Steel & Shipbuilding Company, San Diego. This concern has already contributed two series of steel trawlers to the Mexican Pacific shrimp fishery.

Now, NS&S is building seven more of 54' length. Three, of which the *Martha* is the first, are for Productos Congelados, Guáymas. Two at least are Washington-driven. Three are for Refrigeradora del Noroeste, Mazatlan and another for Frank K. Anderson, Mexico City.

The Drake & Bullen trawlers of 54', in addition to their 90-hp. Washingtons, with reversing clutches, can be stepped up to 120-hp. for 65' hulls. They will have 2-cyl. Hercules combination generators and compressors, with auxiliary power take-offs; "Northern Dragger" winches. Crew of eight is accommodated in the wood deckhouse and below deck. Fuel capacity is 2,266 gals.; fresh water, 824 gals. Ice capacity is 28 tons; shrimp storage 14 tons. Tail shafts are 3/4" Monel metal, with bronze propellers.

The seven trawlers which National Steel & Shipbuilding Corporation had under construction are

Two of a series of five 54' by 18' steel trawlers, built by National Steel & Shipbuilding Corporation, San Diego, to join the big fleet of Pesquera de Topolobampo. Power was 85-hp. Atlas-Imperials. They have tail shafts of 2 3/4" Monel metal and Onan light plants.



of the same general lines as the series of five built last year for Pesquera de Topolobampo.

In the three for Productos Congelados, diesels are an Atlas Imperial, Washington and Enterprise. In two at least the light plants are Onan. In all three the tail shafts are 3 1/2" Monel metal.

For Refrigeradora del Noroeste three vessel's engines had not been decided on at presstime while in the Anderson trawler the owners were furnishing a Series 671 General Motors diesel, with 3:1 GM reduction.

At Guaymas, at the yard of Construcciones Navales, five 66' x 18' wood trawlers were being built. These have 110-hp. Atlas-Imperial diesels, with Universal air-cooled 32-v. light plants. Three of these were for Pesquera de Topolobampo; two for Alberto Tirado, J.

At Rocky Point, in the far north, at Mazatlan, at Santa Rosalia, at Topolobampo, in the Gulf of Mexico, other trawlers, steel and wood were being rushed. Many of them will be propelled by D17000 "Caterpillar" propulsion diesels.

Several for Hector Ferreira will be "Cat"-driven, with RCA 75-watt radiotelephones and Bendix depth recorders, all equipment supplied by Shepherd Diesel Marine, Southern California distributors. Universal and Onan light plants will be found in many. A newcomer, now distributed by Shepherd, is the Stroudsburg trawling winches, two going into new northern trawlers built for Victor Estrella, Rocky Point, Sonora.

These two trawlers, built there, are "Caterpillar" driven; one by a D13000, with 3:1 Twin Disc reduction; the other D8800, also Twin Disc. Seven trawlers for Salina Cruz, being built in the Gulf of Mexico, will have D17000 "Caterpillars."

One of the largest building operations is at Mazatlan in the yard of Tomas de Rueda, Jr., where probably 20 trawlers, 40' to 65', are under construction. Most of these will be "Caterpillar" driven.

Ice Is Vital

ONE of the vital requirements of the Mexican Pacific shrimp industry, in a semi-tropical climate, is ice—ice to preserve the shrimp aboard trawlers; for several operations within the freezer plants, and for shipping thousands of miles to destination in the United States.

It is estimated that no less than 130,000 tons were needed during the 1949-50 season; more must be available this season because of stepped-up production. Practically every freezer plant along the entire 2,000-mile fishing coastline has increased its ice-making facilities for this season, some doubling capacity.

The largest ice-making plant of the entire fishery is located at Guaymas, at Planta de Hielo Monarca, a subsidiary of Pesquera E Industrializadora de Guaymas. Here can be produced 60 tons of clear ice daily. It went into operation the latter part of last season.

Mexico's Pacific Shrimp Exports To U.S.

Year	Pounds
1934	677,742
1935	1,574,372
1936	553,045
1937	2,059,126
1938	3,243,418
1939	3,797,945
1940	4,913,474
1941	3,116,518
1942	4,420,136
1943	5,864,624
1944	6,082,651
1945	7,875,367
1946	11,493,807
1947	10,728,074
1948	14,441,622
1949	17,914,319
Season 1949-50	
August to June 30	20,819,536

PACKAGING—

The Key to Quality in Pacific Frozen Shrimp

WHILE a glazed package of frozen shrimp is considered standard in the 5-lb. unit, the trend is toward packaging unglazed shrimp in the 12-oz. consumer package.

If shrimp are completely covered with a glaze of ice, and that glaze is not permitted to melt or evaporate, the shellfish is said to be well protected. Obviously, however, the disadvantage to this type of packaging

for consumer sale is the dead weight of a block of ice, which must be handled and shipped long distances. Furthermore, it is impractical to glaze the small package, as the added labor of preparing a glazed block of shrimp to fit a 12-oz. package greatly increases the cost.

Third, distributors feel it is doubtful if housewives would find shrimp encased in a block of ice to be as acceptable as unglazed shrimp properly packaged. The 5-lb. units of glazed shrimp are almost always thawed before offered for sale, whereas the 12-oz. package comes directly into the consumer's hands, and taken home frozen.

To replace the protective layer of ice, resulting from glazing, a well-established frozen vegetable industry practice of using cartons made of laminated paperboard, as a protective shield against moisture-vapor loss, commonly known as "freezer burn," has been adopted widely by the shrimp industry.

Laminated frozen food carton board is coated with a blend of waxes, sealing broken fibres of the board at score lines. The inner surface is covered with a sheet of wet-strength paper that does not soften when exposed to moisture for long periods.

This inner liner serves the double purpose of sealing the package against moisture-vapor loss, and preventing the board from absorbing moisture from the shrimp, thereby becoming soft and soggy. The inner liner, too, is treated to prevent the product from freezing to the carton; thus is easily removed with no bits of paper adhering to the product.

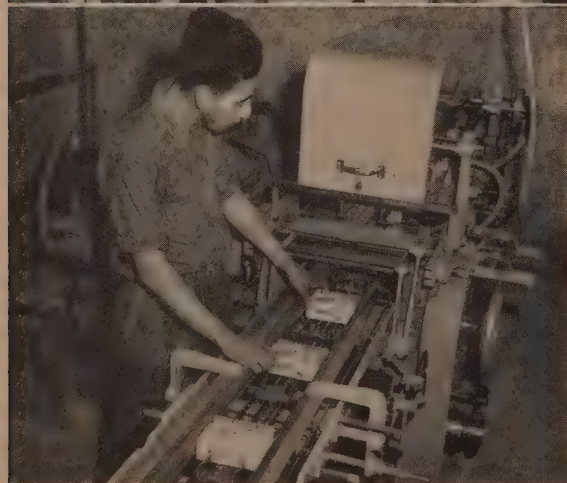
A style of carton now widely used in the frozen shrimp industry is so constructed that it is set up for filling automatically with one swift opening movement, a development of Marathon Corporation. The cover closes over the outside of the package with one motion, and then is automatically locked, so when cartons are overwrapped by machine, the locked top eliminates jamming, and holds the carton firmly in shape in the freezing operation.



Laboratory technician of Marathon Corporation checking test packs of frozen shrimp in 12-oz. consumer cartons to determine effects of freezing and storage on packages of different materials and varying conditions of refrigeration. Tests are made for such factors as desiccation, loss of weight, flavor or texture. Technical progress in packaging has contributed much to the popularity of the product.



Women workers in an American plant consumer-packaging shrimp which have been brought from Mexico fresh. Filled packages are checked in the foreground for weight before going by conveyor to the wrapping machine.



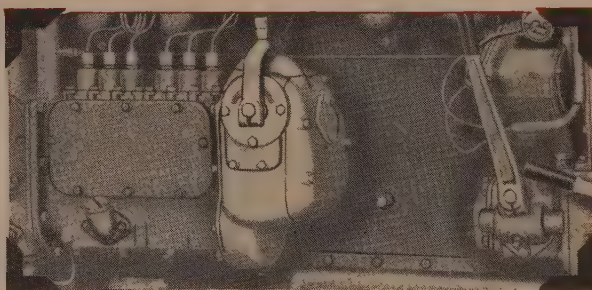
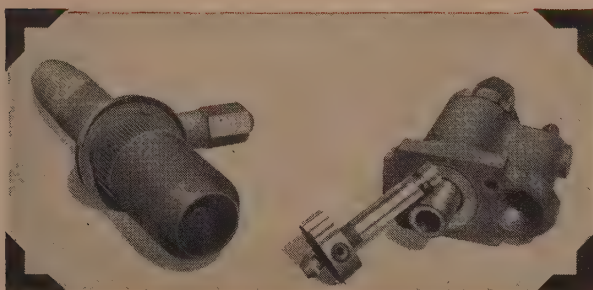
A modern high-speed automatic wrapping machine of Package Machinery Co. manufacture working on 12-oz. consumer packages of shrimp in the plant of Pesquera de Topolobampo. Consumer packages are always complete before being frozen, while the 5-lb. blocks are frozen first in a glaze of ice, re-glazed and then packaged.

STANDARD ENGINEER'S REPORT

DATA

PRODUCT *Standard Diesel Fuel*
UNITS *High-speed diesel engines*
CONDITIONS *Heavy duty service—overloads, heavy dust*
PERIOD *10 years*
FIRM *Parish Bros, Benicia, Calif.*

Specially handled diesel fuel helps increase injector life



BURNING STANDARD DIESEL FUEL in their engines and using special precautions to keep it clean has lengthened considerably the service periods of injector pumps and valves for Parish Brothers, highway builders, Benicia, California. The unit above

from one of their DW-10 Caterpillars gave the unusual service of 16,000 hours! STANDARD Diesel Fuel helped get this extra service and cut fuel parts expense because it is completely refined, then carefully handled to insure cleanliness from refinery to consumer.



FUELING A HIGH-SPEED TRACTOR with a "wet hose" to avoid getting dirt in the fuel tank. Parish Brothers use STANDARD Diesel Fuel in engines powering many other types of diesel equipment, including stationary units on air compressors, pumps, shovels, etc.

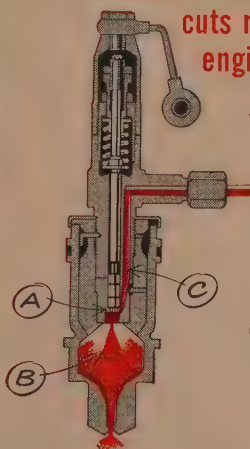
FREE FOLDER tells how to keep fuel clean... gives more information about STANDARD Diesel Fuel, and STANDARD Automotive Diesel Fuel for certain high-speed engines that require a premium-quality high-cetane fuel. Write or ask for it today.



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How STANDARD Diesel Fuel cuts repairs and ups engine efficiency



- A. Complete distillation and 100% cleanliness prevent wear of fuel parts and plugging of passages.
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- C. Has sufficient body to lubricate moving fuel parts, but flows freely even in extremely cold weather.

STANDARD TECHNICAL SERVICE checked this product performance. For expert help on lubrication or fuel problems, call your Standard Fuel and Lubricant Engineer or Representative; or write Standard Oil Company of California, 225 Bush St., San Francisco.

STANDARD OIL COMPANY OF CALIFORNIA

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THAT
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THE NET
THAT LANDS
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THE LINEN THREAD CO., INC., 116 New Montgomery St., San Francisco 5, Calif.

(Successors to American Net and Twine Company)

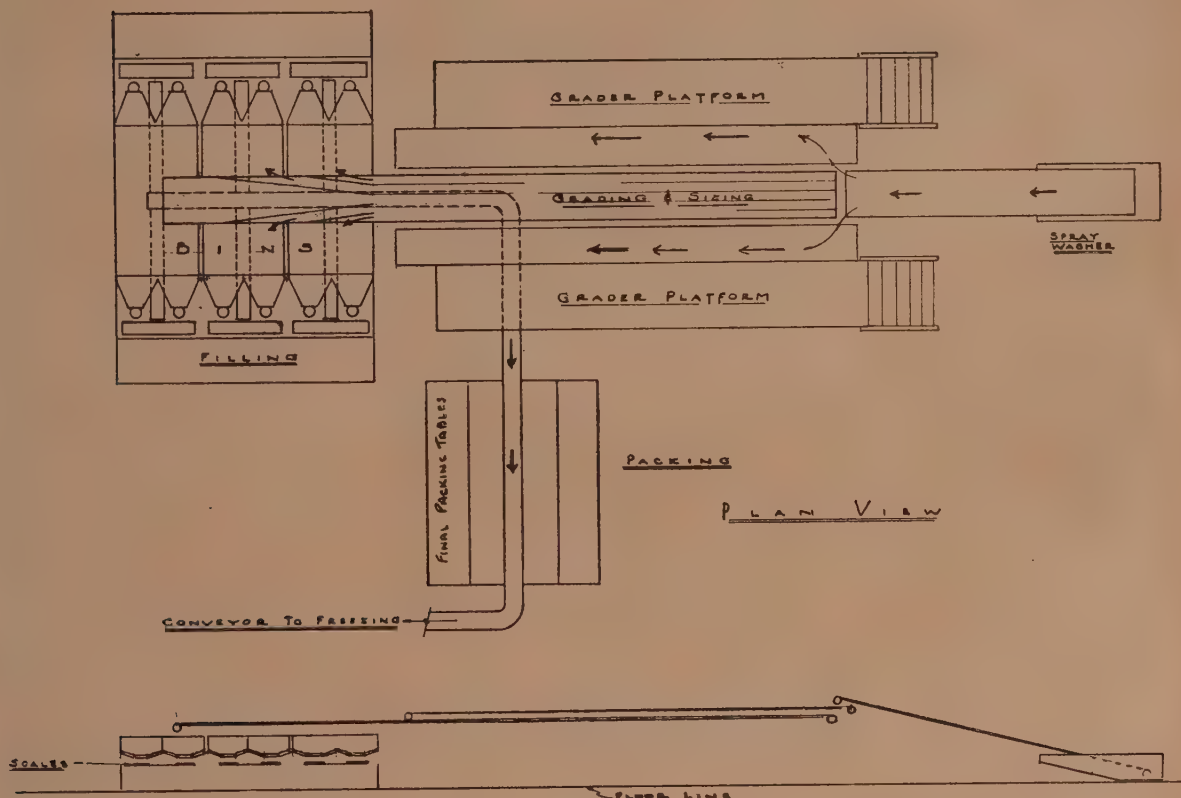
Pacific Coast Distributors: Pacific Marine Supply Co., Seattle • Oregon Marine Supply Co., Portland and Astoria • Cincotta Bros., San Francisco and Monterey • Marine Hardware Co., San Pedro and Terminal Island • Nuttall-Styris Co., San Diego • Cia Exportada del Sur, S. A., Guaymas, Sonora, Mexico.

Canadian Representative: Western Leckie Limited, Vancouver, B. C.

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Other Netting Products: AN&T Coy Linen Gill Netting—Gold Medal Sea Island Cotton Gill Netting—Barbour's Nylon Netting—Plymouth Rope—A complete line of Netting Accessories.

Packaging Plan of a Modern Mexican Shrimp Plant



This is the packaging department layout engineered for Cia. Mar Bermejo's modern shrimp plant at Santa Rosalia, Lower California, by Carlos Unger Ferreria, industrial engineer who has specialized in devising equipment and arrangements for the efficient preparation and packaging of Mexico's Pacific Shrimp. This equipment was manufactured by the Broagdex Corporation, Poma, Calif., and has capacity for packaging 2,500 lbs. of shrimp per hour. Working surfaces are of stainless steel, and the shrimp are carried on rubber belts. This equipment is pictured in the photographic illustration on Page 67.

Tests by leading shrimp packers indicate the laminated carton here described, together with a well-sealed overwrap of either waxed paper or cellophane, will protect frozen shrimp in normal distribution with excellent results. Shrimp packaged in this manner has been sold in the U. S. for over three years and is universally accepted.

Fibreboard Products, Inc., has been supplying the 5-lb. cartons since 1934, and has made millions of them. They developed for American Prawn Co. an end-opening, gusset corner carton, with a heavy paraffin wax coating inside and out.

When the industry passed into Mexican control, Fibreboard Products, Inc., continued to be the leading supplier of these cartons. The company also produces a 5-lb., two-piece carton, but not many of these are now used. Fibreboard also manufactures the 12-oz. consumer pack-

age, wax-coated, for overwrapping with either waxed paper or cellophane.

Empaques de Carton Titan, S. A., Monterey, is the primary Mexican manufacturer of corrugated cartons and master cases, having specialized in boxes for all purposes for 25 years. The company, which is represented along the West coast of Mexico by Patricio Nieves R. Sucs., Hermosillo, Sonora, is a considerable supplier to the Mexican Pacific shrimp industry.

The company is now constructing a new plant at Guadalajara which will permit it to give service to the rapidly-growing industry at Mazatlan and south. The firm of Patricio Nieves R. Sucs. is composed of two brothers, Patricio A. and Alvaro G. Nieves. From Hermosillo they cover the states of Sonora, Sinaloa and Nayarit.

For the shrimp industry they

have a number of items, including cartons of 5-lb. capacity, cellophane wrapping, wrapping machines and the familiar wicker baskets in which green shrimp is handled; as well as cork insulation for freezing plants and vessels. The brothers, with their late father, have been 17 years in business along Mexico's West coast.

"Wrapmaster," a semi-automatic wrapping developed by Schooler Manufacturing Company, Glendale, California, is being employed by shrimp and fish packers on both sides of the international border.

One is being used by "Mar Bermejo," Santa Rosalia, for wrapping a 12-oz. plastic basket of shrimp. Others in Southern California operation are at Triangle Cold Storage Company, Central Fish & Oyster Company, "Shrimpy Joe's," McKown & Liston, etc. "Wrapmaster" is adjustable to all sizes and shapes of wrapped packages.



Mexico's Pacific shrimp is a seafood for a thousand menus, although traditionally shrimp cocktail comes to mind first, as it comes first on the bill of fare. This photo shows a modern version of the shrimp cocktail, where the shrimp is cooked first in a court bouillon with aromatic vegetables, and then served with a piquant sauce accented with horseradish, plus garnishing.

SEAFOOD SUPREME

NO seafood has enjoyed a greater increase in popularity during the past decade than shrimp, and particularly in its use beyond cocktails or salads, as the entree or main dish of a meal.

Producing a premium product, with millions of pounds in the largest sizes, as low as "under 10," but mainly "under 15," Mexico's Pacific shrimp industry and its U. S. importers have sought to establish shrimp nationally as a main course, both in restaurants and in the home.

The Pacific Coast has always preferred the jumbo shrimp, paying the highest prices, and discovering it a money-maker for French frying. The Middle West and East, too, like large shrimp, but the Mexican Pacific industry complains that beyond the Continental divide, its product does not enjoy full recognition, because French frying is not as popular as in the West.

In the East shrimp traditionally falls into the category of the cocktail, and little effort has been made

to educate restaurants and the housewife to bringing shrimp to the table as a main dish.

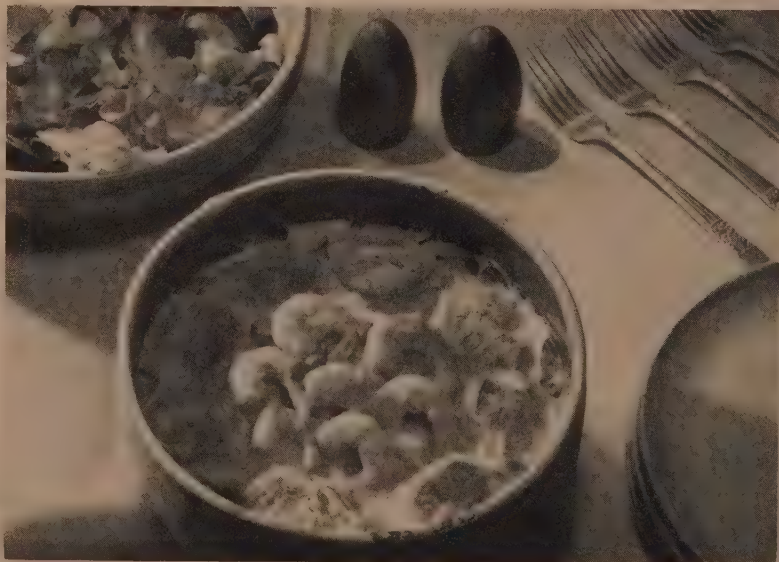
Slowly, however, this change is being made. One way, of course, has been a wide distribution of recipes. Marine Products, for example, has made available hundreds of thousands of "Ocean Garden" booklets, calling attention to the fact that shrimp is amazingly rich in protein yet almost devoid of fats and carbohydrates, as well as giving a number of recipes, the feature being the French or pan-fried.

Wilbur-Ellis Company has widely distributed an advertising piece, with photographs showing the actual preparation of the raw shrimp to pan-frying, for its "Southern Seas" brand.

Mexican producers are now printing recognized methods of preparation and also attractive recipes of their own, developed below the border, and inserting on their cartons or overwraps.

Proving that serving jumbo shrimp as a main dish can be popular and profitable, Bob's Drive-Ins and Coffee Shops in Glendale, Burbank and San Fernando Valley, sell over 80,000 lbs. annually over the counter. Bob's is a part of the Robert C. Wian Enterprises, which has a subsidiary, Leonard A. Dunagan Company, wholesale brokers of Mexican Pacific shrimp, importing "El Conquistador" and "El Cortez" brands from Hielera y Congeladora del Golfo de Cortez, S. A., Guaymas.

First always among the shrimp entrees is the French-fried, piping hot, crisp and sweet-as-a-nut feature of the Western states; but Mexico's Pacific shrimp, with their large size and hearty portions lend themselves to many variations, such as this shrimp and vegetable casserole with biscuit topping. It's economical — and distinctive, particularly when served in a rough earthenware casserole.



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from stem to stern!

More and more reports from commercial fishermen confirm the fact that you can really depend on Nordberg Gasoline Engines to deliver the kind of heavy-duty power it takes for successful, profitable fishing. The answer is simple, when you realize that these rugged engines are designed and built from stem to stern to stand the gaff of this tough service. The troller *GILEAD* is one example of the fast-growing Nordberg powered fleet. This husky 38-footer, owned by Monty Buchan, has a 103 H.P. Nordberg swinging a 32" x 27" wheel through a 3.32:1 reduction gear, providing plenty of power for tough deep water fishing. See your Nordberg representative, or write for Bulletin 143B.

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Has higher detergency level than Tydol HD. For operation under cold start and stop conditions and under unusually severe continued overloaded conditions in all types of engines. SAE grades 20, 30, 40. Sold in drums.

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Has highest detergency level of the Tydol Heavy Duty series. For high performance and supercharged diesel engines using all kinds of diesel fuels under the most extreme conditions. Available in SAE grade 30. Sold in drums.

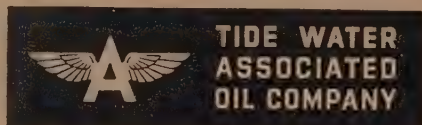
Call your Associated Representative for expert help on any lubrication problem.

Three great new Tydol Heavy Duty Compounded Motor Oils solve every lubrication problem of gasoline, diesel or butane—automotive or stationary engines!

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- ✓ Cleans as it protects as it lubricates.



IFAWA Locals and Leaders Are Indicted

The Joint Northern California Council of the CIO International Fishermen & Allied Workers Union was indicted in San Francisco last month by a Federal Grand Jury on price fixing charges.

Also named in the indictment were seven union officials and six locals. The indictment charged the union with 13 violations of the Sherman anti-trust laws. In addition to fixing prices and terms of sale, the indictment alleged, the union agreed to: compel dealers to follow the prices set; prevent non-union fishermen from fishing or selling their fish; boycott dealers who bought fish from non-union fishermen; set limits on the amount of fish which could be caught on any one trip; and impose penalties on fishermen who exceed the limit set.

Federal Judge Louis E. Goodman set bail on the individuals at \$1,000 each and impounded union records.

Speaking for the union, Jeff Kibre, international representative and secretary-treasurer of the union, one of the indicted officials, said the fishermen had simply been bargaining for wages rather than fixing prices. Kibre last year was convicted of anti-trust law violation, and is also under indictment in Southern California.

The six locals and their officials also named in the indictment are: Local 34, San Francisco, and its secretary-treasurer, John L. Pastorino; Local 35, and its secretary, Rosalie Norton; Local 38, and its secretary, Reed Haas; Local 39, Crescent City, and its secretary, Myron G. Lind; Local 40, Fort Bragg, and its secretary, Ray E. Welsh; and Local 52, Bodega Bay, and its secretary, Bert K. Bean.

Lunde Turns a Quick Buck

Bill Lunde, Hovden Food Products Corporation, might very well qualify for being champ Nimrod along Monterey's Cannery Row. Opening day of deer season Bill got up long before breakfast, drove out into the wilds of the mountains south of town, shot a three-point buck, packed the deer two miles over his shoulders to his auto, and was back in his office at 9:45 a.m.

John Real, general manager, Fishermen's Cooperative Association of San Pedro, has been named chairman, fishery industry committee, San Pedro Chamber of Commerce.

Sardine Plants' Effectiveness Sharpened for New Season

San Francisco region's sardine canneries and reduction plants were all set to go with the opening of the season Aug. 1.

George Christo had made a number of changes in his Northern Packing Co. at Pier 92. The pre-cookers had been changed to the draper belt type of feed, two new drainers built by Ray Bentley, Universal Canning Machinery Co., Monterey, had been installed, and the plant had received a thorough overhauling.

The draper belts for the pre-cookers were furnished by the California Wire Cloth Co., Oakland. New superintendent of Northern Packing Co. was Fred Harbich, formerly with Atlantic Coast Fisheries Co., Monterey.

John "Scotty" Hay, manager of the Keystone Packing Co., also Pier 92, had given his plant a general overhaul in readiness for the season.

At the J-D Packing Co., also at Pier 92, partners in which are Jim Davi and Gus Bruno, the machinery was changed around for more efficiency.

Charlie Florness, superintendent of the Cypress Fisheries and Lansing Fisheries, adjoining reduction plants at Pier 92, gave the plants a general overhaul before leaving with Mrs. Florness on a flying trip to Norway to see his 88-year-old father in the old home town of Arrendal.

The cannery and reduction plant of F. E. Booth & Co., Inc., after packing tuna during part of the summer, was all ready for the start of the sardine season.

In the San Francisco area 19 sardine permittees would run their allotted tonnage of fish through the following 19 plants: Cargill, Inc., in F. E. Booth Co., Inc.; Fish-Dee-Lish Corporation in Hofmann Packing Co.; Fish Packers in Lansing Fisheries; Gardenia Packing Co. in Old Capitol Packers; Elwyn C. Hale Fisheries and Estate of C. P. Hale, Ltd., Plant No. 1 in Plant No. 1, J-D Packing Co., Plant No. 1; Elywn C. Hale Fisheries and Estate of C. P. Hale Ltd., Plant No. 2 in J-D Packing Co., Plant No. 2; Golden State Fisheries in Redondo Fish Products, Plant No. 1; Martinez Food Canners, Ltd., in Carquinez Fish-

ery, Ltd.; Monitor Fisheries Inc., Plant No. 1 and Plant No. 2 in Edible Fish Meals & Oils; Ozol Packing Co. in Cypress Fisheries; Pt. Edith Fisheries, Ltd. in Carquinez Fishery, Ltd.; Princeton Industries in Northern Packing Corp.; Redondo Fish Products Co., in Plant No. 2 in Redondo Fish Products Co. Plant No. 1; Red Rock Fisheries Inc., Plant No. 2 in Red Rock plant No. 1; Richmond Fisheries, Inc., in Pittsburg Cannery; San Pablo Fisheries in Red Rock Fisheries, Inc., Plant No. 1; Sardine Fisheries, Ltd. in Cypress Fisheries; and Tamalpais Fishing & Packing Co., Plant No. 2 in Tamalpais Fishing & Packing Co., Plant No. 1.

In the Monterey district 11 permittees were going to run their allotted fish through the following plants: California Packing Corporation, Plant No. 2, in California Packing Corporation, Plant No. 1; Hovden Food Products Corporation, Monterey plant No. 2, in Hovden Food Products Corporation, Monterey Plant No. 1; Hovden Food Products Corporation, Moss Landing Plant No. 2, in Hovden Food Products Corporation, Moss Landing Plant No. 1; Monterey Fish Products, Inc. Plant 2 and 3 in Plant 1; Oxnard Cannery, Inc., Plant 2 in Plant 1; Peninsula Packing Co. Plant 2 in Plant 1; Western Sardine Co., Inc., in Lucido Fisheries; Santa Inez Fisheries in Santa Cruz Canning Co.; Westgate-Sun Harbor Co. Plant 2 in Plant 1; Wilbur-Ellis Co., Moss Landing in Peninsula Packing Co., Plant 1.

Health and Welfare Program at Van Camp

The tuna industry's first health and welfare program has been incorporated into a new labor contract between Van Camp Sea Food Company, San Diego and the Food, Tobacco and Agricultural Workers union, independent, announced August 5. Van Camp is to bear one-third of the cost.

The packing concern also agreed to set aside \$2,500 monthly toward a pension fund, details yet to be worked out. No blanket wage increases are provided in the new contract, but some workers will receive pay adjustments ranging from 5 to 25c an hour.



Quality Always

FOR many years, the canned salmon industry has utilized its resources to give consumers a better product, constantly improving production and distribution methods.

Today, the industry offers with pride a consistently fine basic food that is rich in nutritional value, appetite appeal and adaptability to modern mealtime needs.

A one-pound can of salmon contains enough health-building goodness to feed a family of four a delicious, satisfying meal. High in protein content, it boasts many other essential food requirements also. *Canned salmon is actually an economy food!*

All the facilities of Pacific American Fisheries are pledged to continued development of the industry.

PACIFIC AMERICAN FISHERIES, Inc.

South Bellingham, Washington

"Quality Always"

Sales Subsidiary: DEMING & GOULD COMPANY, South Bellingham

FOOD FISH MARKETING

*News and Views of National
Trade in Fish and Shellfish*

\$29 Alaska Red Tall Price Draws Satisfactory Trading

Satisfactory movement of Alaska Red salmon developed in August following Calpack's opening at \$29, and by presstime it was evident that a very large portion of the million-odd full cases of Alaska Reds had been disposed of at prices along the line of \$29 for tall and \$18 for halves.

Some packers of substantial parcels of Reds had not yet come out with opening prices at presstime, and were showing no concern over closing out their inventories.

Calpack's opening figure on Red halves was \$17.50. Libby's opener on tall was at the \$29 price, with \$18 for halves. Pacific American Fisheries offered its tall at \$28.80, with \$29.80 for pound flats and \$18 for halves.

Alaska Pinks

With the pack of Pinks still to be defined, no market on this grade had crystallized at presstime. It was known that some early arrivals of extra-good Pinks had been sold as high as \$24; and more had gone at \$22. These prices, however, were for spot stocks on arrival.

Seeing nothing in the preseason indications to hint a repetition of the

Southeast Alaska Pink bonanza of 1949, sellers generally were expecting a definitely subnormal supply of this grade.

Puget Sockeyes

Puget Sound Sockeye production was not expected to be known until early September, so pricing at presstime was definitely on a spot basis. Sales of hand-packed goods at \$20 were reported, with top figures for machined packed at \$19.50. Early sales of machine-filled Socks are known to have been made at \$18.50 and \$19 for comparatively small parcels.

Early Sockeyes were reported to be large and of excellent color and oil, drawing favorable comment from the most critical examiners.

Columbia River Chinooks

Columbia River cannery withdrew from the market for a moment following the early August price action which saw the price paid the fishermen boosted by $4\frac{1}{2}c$, retroactive to the first of the season.

When they came back into the market packers offered extra fancy Chinooks, featured brands, at \$21 and \$22.

lbs. of \$1.15-1.35 crabmeat into cans and then sell the case for \$25—not and make money.

Alaska fishing was good after the crabs came out of moult along about the middle of July. Pacific Pearl of Alaska was busy at Ketchikan, while H. M. Parks Co. and Whiz-Halferty engaged in an active competitive operation at Cordova.

The Cordova crabbers tried fishing outside the protection of Hinchinbrook Island, and are said to have found rich beds.

Beside picked crabmeat, a lot of crabs were coming down from Alaska through August in the shell.

No substantial production from Oregon and Washington crab grounds was expected much before October.



Frank Elliott, Seattle food broker and exporter, who recently became head of the food end of the National Security Resources Board, one of the key posts in Washington in a time of national emergency.

Mackerel Market Firms Despite Flush Fishing

The mackerel trade out of Southern California was fair last month, but packers were generally bothered with a persistent shortage of Pacific; on the other hand, there was lots of Jack. Quotations, in view of general conditions were firming. In early August, Pacific was quoted at \$6.25; Jack at \$5.75.

July proved to be a big month, one of the biggest for summer fishing: 8,319 tons, of which no more than 10% was Pacific. The pack for the month was 139,110 cases, bringing the year's total almost to the half-million mark.

Impressive is the rapid growth of the pet food production. For the first six months of 1950, pet food reached 780,925 cases. It is put up in three sizes, 1 lb., 11 oz., and $\frac{1}{2}$ lb.

Canned Oyster Prices Upped \$2 Per Dozen

Willapoint Oysters, Inc., about the end of July raised the prices of Pacific canned oysters by 50c per dozen cans "across the board."

This made cases of 48 cans as follows: halves, \$15; buffet, \$18; E. O., \$20; tall, \$28.

High Crabmeat Prices Put Stop to Canning

Although the nominal market price for canned crab advanced to \$25 during the summer on the basis of strong demand and scant supply, canning was nil even when crabs were available because of the high prices offered for fresh-picked crabmeat.

Alaska was about the only place where there was a crab supply of consequence after the middle of July and the demand for crabmeat quickly carried the price to anywhere from \$1.15 to \$1.35, depending upon how much was offered at the moment.

This put a complete stopper on crab canning, as you can't put 23

Speculative Stimulation Moves Canned Tuna in Large Volume

Up-surge of canned tuna buying, starting in June and gaining momentum throughout July, was due to two factors: In June, with cannery strike conditions impending, Southern California packers advised the trade to purchase heavily, even at post-billing up to 60 days.

This was by no means speculative buying, but rather from self-protection against idle canneries during the heavy-consuming period of the year. The second stimulus, however, was purely speculative, and this reached past the grocers' shelves to the consumer.

Stripping food shelves of canned tuna was pretty general throughout the country and, as in many other commodities, caused a temporary shortage. Wholesalers bought heavily because of fear of rising prices. This, however, did not occur.

The leading packers of advertised brands took a firm step in the right direction as the flood of orders cluttered sales managers' desks. They stabilized the industry by guaranteeing against a price raise until October 31.

Packers were frankly leery of the situation—they'd been all through this before. While they weren't adverse to doing the added business, the \$64 question with them was: Would this reflect itself in a downward curve below normal in the fall?

Private label business strengthened, both in volume and prices, the latter having been considerably shot by the Japanese invasion. Some private label packers withdrew temporarily from the market to see what would happen.

The Japanese import situation, for the time being, went into the background. There just simply wasn't enough of it, in view of heavier buying to make much difference. It was reported there was a lot of Japanese canned tuna on the high seas, but all of it was already purchased. Buyers couldn't wait to see what was going to happen—they had to have tuna now!

This isn't to imply the New York and Boston markets were not still largely preempted by Japanese and, for that matter the product was be-

ing sold in many parts of the country, and of course at low prices. One Los Angeles super-market was offering Japanese Light Meat, fancy, at 29c.

It was reported there would be a general raise in quoting futures on Japanese tuna. Light Meat at Yokohama was said to be quoting at \$8.50 which, with \$1.92 duty and \$1.70 for freight and insurance, would bring the cost to \$12.12, representing about a \$1.25 raise.

Lots of Peruvian canned bonito was said still pouring into the eastern seaboard, but very little Yellowfin. Bonito appeared to be steady at \$10, solid pack.

One thing appeared certain: There will be no shortage of canned tuna. The industry is way ahead of last year; Albacore tonnage is much greater than for August last year. Only scare buying will create a shortage and what canners were afraid of in mid-August was that this would react unfavorably against orderly movement of the product during the latter part of the year.

Brokerage Firm Specializes In Mexican Shrimp

A. R. Lantz Company, 602 E. 4th street, Los Angeles, was recently formed to handle brokerage on frozen seafoods and particularly shrimp from the west coast of Mexico. Two principals are well known in the business, A. R. Lantz and Gus D. Vellis.

Protest Tuna Imports

On the subject of the need for increased tariff on tuna arriving in the United States, the San Pedro Chamber of Commerce recently submitted this letter to Rep. Cecil R. King, Washington, D.C.:

"Because of the existing situation with regard to the increasing imports of Peruvian bonito, Jap tuna and like imports from Africa, this organization found it imperative to hold a special meeting of the board of directors to discuss this subject.

"We noted that imported case goods of tuna were selling on the

Southern California Canned Fish Prices

Quoted f.o.b. cannery at presstime.

Tuna—

Advertised Brands:

White Meat, Fancy	\$16.00 to \$17.00
White Meat, C & F	\$14.50
White Meat, Grated	\$12.00

Light Meat, Fancy	\$15.25
Light Meat, C & F	\$13.00

Private Label:

White Meat, Fancy	\$14.75
White Meat, Standard	\$13.75

Light Meat, Fancy	\$13.25 to \$14.50
Light Meat, Standard	\$12.25 to \$12.75
Light Meat, C & F	\$11.00 to \$11.50
Light Meat, Grated	\$10.25 to \$10.75

Mackerel—

Pacific, tall/48	\$ 6.25
Jack, tall/48	\$ 5.75

San Francisco Prices

Prices quoted openly, subject to pack, f.o.b., San Francisco, at presstime for this issue.

PACKAGE—

	PRICE
15-oz. tall, natural	\$4.00
15-oz. tall, t/s	4.50-4.60
15-oz. oval, t/s or m/s	6.00
5-oz. nat., 100	5.40
5-oz. t/s, 100	5.90
8-oz. buffet, 48	3.90
8-oz., flat, 48	4.75

New York market for \$3 per case less than the domestic variety. In addition, it was reported that cannery owners in San Diego plan to curtail the operation of their fishing fleet because of the imported fish.

"Since a similar action in San Pedro would seriously affect our economic structure."

Union Asks Merchants To Return Russian Crab

Commercial fishermen at Eureka recently launched two movements to protect the California industry from what the fishermen describe as unfair competition.

In one move, the fishermen's AFL Butchers' Union asked local merchants to clear their shelves and stocks of all canned crabmeat from Russia; and to send the products back to the sellers.

The union also has drawn up a resolution protesting the importation of fish and fish products into this country from any source, and urges a general boycott of such products.

Jersey Broker Reports On "Buying Wave"

Interesting comment on the summer spurt in canned fish buying is contained in a letter from Milton C. Mankowitz of the Jersey Brokerage Co., Newark, who writes:

"Where stocks were rather plentiful up until about two or three weeks ago, we are now operating on a day-to-day basis—that is, we check our orders in every morning to apply against our importer's current inventory (if any) and against shipments afloat, which are now sold as soon as we have news that the goods are afloat. Fancy Jap Albacore could be purchased up to a short time ago at around \$13.25 per case on a direct basis, or \$13.75 per case through the importers. The price now is around \$15.75, with practically none obtainable.

"We were doing a substantial business on Peruvian bonito and flakes up until about a year ago. When the Jap tuna and flakes started to arrive in volume we noticed the decline in sales on the Peruvian goods. However, with the increasing spread in prices, we are looking forward to increased demand on Peruvian bonito and flakes, if the Peruvian shippers fulfill their contracts, concerning which there is some doubt among the local importers. They also expect a serious curtailment in the shipments of Jap fish products. This, plus the increasing price on Jap goods, again will place the West Coast tuna packers in a favorable position in the eastern markets.

"We represent Skinner & Eddy on salmon, and on this item in the past few weeks our buyers have taken every case we have made available, plus orders for large quantities which we cannot yet confirm."

Mitchell Beck Co. Opens S. F. Office

The Mitchell Beck Co., Inc., food products sales agents with headquarters at 105 Hudson Street, New York City, is opening a San Francisco office under the direction of Leonard Jones, formerly with Safeway Stores and the L. DeMartini Co.

Mitchell Beck Company has been extending its activities in the canned and frozen fish fields, according to a

Rocketing Meat Prices Set Off Startling Trade in Frozen Fish

Rocketing prices of meat, together with war-stimulated buying by the trade, during the late summer produced an extraordinary movement in frozen fish, particularly halibut.

Although the 1950 freeze of halibut was obviously the largest in history, and put up at the highest cost the business has ever known, the end of August found Pacific freezers contemplating inventories so reduced that they were beginning to worry about stretching the balance until spring.

Main trading had been at 33c for mediums and large, basis of cars, f.o.b. coast, and at presstime this price was still ruling, although some sellers talked of advancing to as much as 38c for their limited remaining stocks.

Salmon Also Sought

The strong demand for halibut was reflected in considerable degree in the call for salmon, although with most of that pack still to be made, the late August trend in salmon was manifest more in buying activity

than in selling prices and shipment.

Troll Silver salmon were bringing the fishermen above 30c at various coastal markets before presstime, and up to 32c or more at Seattle. Westport was bidding above 30c for Silvers, and they were worth as much on the Columbia River.

Meat Prices Responsible

The primary packers on the Pacific Coast late in the summer felt that fantastic prices for meat were principally responsible for the extraordinary demand for frozen halibut and salmon. They acknowledged that some trading doubtless was due to supply-conscious wholesalers wanting to get their requirement under their control; but said that very heavy consumer buying was evident in the principal markets as the fancier forms of frozen fish were substituted for cuts of meat which had passed the purchasing power of many Americans.

Halibut and salmon were high, too; but not when compared with anything from top sirloin to ground round or boneless stew.

letter from Robert L. Stix in the New York headquarters. He formerly was with the George B. Peterson Co. in Seattle when it was sales agent for the Red Salmon Canning Co.

B. C. Packers Expand Packaged Fish Activity

B. C. Packers' program to expand the production and sale of packaged frozen fillets continues to have encouraging results, President John M. Buchanan reports, saying:

"Sales prospects in these rather speculative lines are difficult to forecast. Under heavy competition, buying prices of raw salmon are higher, and of raw halibut sharply higher than last year. Fresh halibut shipments to the Eastern markets are considerably reduced, but this is partly attributable to increased Atlantic halibut production. Buyers have not yet fully accepted the higher ranges of frozen halibut."

Buyer Interest Sharp In California Sardines

With production barely beginning, and all of the 1949-50 pack of sardines out of first hands, San Francisco brokers reported at presstime that they found keen interest in new-pack sardines, currently priced at \$6 for ovals and \$4 for talls, natural.

Mankowitz Swings Deal

In a deal involving over a million dollars, Flagstaff Foods, Perth Amboy, N. J., acquired the stock of Uco Food Corp., Newark, N. J.

The deal was handled through Milton C. Mankowitz, president of the Jersey Brokerage Company, Newark, New Jersey.

Frank Barrar, Joe Balestrieri & Co., Inc., San Francisco, was passing out cigars last month, the occasion being the birth of his second child, Melinda Sue, who is also Joe Balestrieri's third grandchild.

Supply Supplants Price as Primary Concern of Buyers

Rapidly-increasing importance of consumer-packaged frozen fish in the Chicago market and—

Buyer attention to adequacy of supply of leading varieties of canned and frozen fish, rather than to price—

These are the currently significant conditions prevailing in the Chicago territory, as reported by Stanley J. Remus, fish broker, during a mid-summer visit to the Pacific Northwest.

Speaking in the offices of the San Juan Fishing & Packing Co., which he represents, Mr. Remus did not use the words "inflation" or "war scare," but he made it plain that buyers of canned Red salmon, of frozen halibut and Silver salmon, and other leading items of proven acceptance, are much more interested in their supply than they are in the price to be paid for it.

"Advanced prices necessitated by the current high cost of frozen halibut and salmon, and the scarcity of canned Red salmon, are being accepted by the trade as unavoidable under the circumstances," he said.

Mr. Remus credits the chain stores of the Chicago area with the steady growth of consumer-packaged frozen fish—and with a resulting overall increase in fish consumption. "When all fish was sold through the butcher shops or the fish markets,



Stanley Remus, Chicago broker, taking a bit of business by phone in the Seattle office of San Juan Fishing & Packing Co. during his recent visit to the Pacific Coast.

they wanted whole fish; but the frozen food cases of today's chain stores move important volume of consumer-packaged fish, and the volume is growing all the time."

Marked growth in the demand for frozen salmon and halibut in consumer packages is reported by Mr. Remus, who attributed it to a natural extension of the demand for the old-favorite varieties in the new-favorite form—the consumer package.

U.K. To Buy 5 Million Worth of B.C. Salmon

British Columbia canned salmon packers are assured of a \$5,000,000 purchase by the United Kingdom from the 1950 pack, in addition to which the domestic market demand should be at least as good if not better than in 1949, according to a market analysis made by the Canadian government.

The pack of British Columbia canned herring, amounting to 78,000 cases, represented a drastic cut-back to less than 20% of the 1948 pack, only 5½% of the 1947 pack and an even smaller proportion of the record pack of 1945, which was 1,400,000 cases.

Canning Albacore in British Co-

lumbia last year totalled 40,000 cases (48 ½'s), according to the official figure.

Paragon Concentrates All Canning at Hoquiam

All fish canning operations of the Paragon Packing Co. are being concentrated this season in the company's versatile plant at Hoquiam, Wash., under the direction of Frank Kistner, vice-president and general manager.

The Portland and Astoria canneries are not in operation as such.

Beside direct Grays Harbor deliveries, the Hoquiam plant is drawing raw material by truck from points on the Columbia River as far east as Celilo, and from well down the Oregon coast.

Atlantic Fish Fillets Carry Rupert Brand

B. C. Packers, Ltd., have entered into arrangement with a producer of fillets in Nova Scotia, Sable Freezers, Ltd., to custom pack "Rupert Brand" Atlantic halibut fillets and haddock fillets in 1-lb. cartons.

President John M. Buchanan says he hopes that this operation will furnish an increasing supply of Atlantic fillet species for group marketing with Pacific coast items.

SEATTLE PRICES

Openly quoted prices current at press-time, f.o.b., Puget Sound Terminals

Salmon—	
Alaska Red, 48/1 tall	\$29.00
Alaska Red, 48/2 flat	\$18.00
Alaska Pink, 48/1 tall	
Alaska Chum, 48/1 tall	Nominal
Puget Sockeye, 48/2 flat	
	\$19.00-20

Chinooks, extra fancy 48/2	
	\$21.00-22
Tuna—	
Albacore, fancy, 48/2	\$16.50-17
Albacore, Chunks, 48/2	\$11.50-12

Oysters—	
Pacific, 48/2	\$17.00
Pacific, 48 buffet	\$18.00
Pacific, 48 E. O.	\$20.00
Pacific, 48 tall	\$28.00

Crab—	
Pacific, halves, 48	\$25.00
Clams—	
Razor, halves, 48	\$14.85

(Note: Pacific oysters are quoted in cases of 48 tins, but are usually actually packed in cases of 24).

Vancouver Canned Salmon Quotations

Openly quoted general commercial prices charged by packers to the wholesale trade, Canadian funds, f.o.b., Vancouver. These prices were announced August 10, and apply to the new 1950 pack as well as what remains of the 1949 pack, which is now negligible. The prices apply to domestic as well as export business.

VARIETY	PER CASE
Sockeye—	
Talls	\$31.50
Halves	33.00
Quarters	19.00
Coho—	
Talls	23.50
Halves	25.00
Quarters	15.00
Pinks—	
Talls	17.50
Halves	19.00
Quarters	12.00
Chums—	
Talls	13.00
Halves	14.50

Monterey Bay's Perfected Plants Tuned for Active Sardine Canning

California's Monterey Bay area sardine processing plants had been modernized, overhauled, and readied for action when the season opened Aug. 1.

First plant on the Bay to receive sardines was the *Santa Cruz Canning Co.*, Monterey, which received fish Aug. 4. The fish were caught in the bay, some 40 tons of them, by small boats from Santa Cruz. Santa Cruz Canning Co. received a complete overhaul and a new labelling machine was installed during the off-season under the direction of *Joe Olivieri*, president and general manager, and *Ernest Strang*, superintendent.

Port Costa Packing Co., *Frank Richey*, president and general manager, put in a new Continental Can Co. vacuum closing machine for its round cans, at its Moss Landing plant. *Frank Richey Jr.* is now associated with his father in the Port Costa Packing Co.

Hovden Food Products Corporation, Moss Landing, *Lloyd Phillips*, superintendent, was preparing to receive not only sardines but also Albacore, for which faster unloading facilities have been arranged.

Chlorination Systems Installed

Across the Bay in Monterey, all fish canneries along Cannery Row had put in chlorination systems to purify sea water used in processing sardines, according to the requirements of the State Board of Health.

Vito B. "Bill" Alioto, formerly with Benicia Food Products, Benicia, is now an assistant to *Sal Ventimiglia*, California Frozen Fish Co., Monterey.

San Carlos Canning Co., *Bud Day*, general manager, will pack 8-oz. round can of sardines this season, as well as 5-oz. round cans. The cannery underwent a considerable revamping during the spring and summer.

Enterprise Packers, *Buster Sollecito*, president and general manager, has re-arranged its 5-oz. packing and canning line.

Central Packing Co., *Frank Lucido*, president, has changed its name to *Monterey Fish Products Co.*, No. 3. Monterey Fish Products



Joe Crivello, Monterey, owner of the *Sea Traveler*, watches the Fairbanks-Morse automatic scales, as his seiner's sardines are weighed and conveyed into the plant of Monterey Fish Products Co. on the first day of fishing at that part.

also operates two reduction plants. Plant No. 3 will pack 5-oz. this season, and changes have been made in the packing tables, giving more capacity.

One New Cannery

A new cannery for the Row is *San Filippo Co.*, *Sam Sanfilippo*, president and general manager. Sam was formerly associated with his father, Pete, and Vito B. Alioto in the Benicia Food Products Co., Benicia, until that plant was destroyed by fire several years ago.

San Filippo Co. has leased space from the estate of the late Angelo Lucido in the *Ronda Fisheries*, next to *Magnolia Packing Co.*, and will produce "Smacklets," tenderloins of sardines, packed in 9½-oz. round oyster cans. "Smacklets" will be distributed nationally by Collins Bros., San Francisco food brokers.

The plant is very compact and will have a capacity of about 800 cases per day. Offal will be reduced in the plant of *Magnolia Packing Co.* Fish are received in tanks holding 70 tons. They are brined and washed thoroughly before packing. Cutting machines are especially designed to take off the head and tails and then the abdomen of the fish. Cans are closed on an American Can Co. closing machine.

Edgewater Packing Co. received a thorough overhauling under the direction of *Joe Benossi*, superintendent, and like all other plants on the Row installed a chlorination system.

Westgate-Sun Harbor Modernized

One of the largest jobs of modernization took place at the plant of *Westgate-Sun Harbor Co.*, under the direction of *Paul Jepson*, manager; *Joe Miller*, superintendent; and *Ray Bentley*, Universal Canning Machinery Co., who acted as consultant.

Two-thirds of the plant was torn out, and in half the space greater canning capacity was created. The Continental Can Co. closing machines have been grouped in one spot; three Neptune Process Machinery automatic sardine packing machines; a new can dispenser and leveller; a new Nash vacuum pump for the fish eviscerators; and a gang drainer for all oval lines. The cutting machines were rebuilt using Max Kuther vacuum valves.

Two new pre-cookers, with draper belts were installed at the Monterey plant of *Hovden Food Products Corporation*.

Monterey Canning Co., *Magnus Flause*, president and general man-



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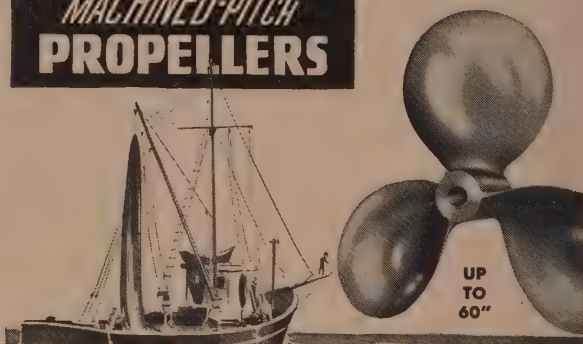
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SEATTLE OFFICE — 1844 WESTLAKE NORTH

ager, changed its conveying system around, put in a new can washer, and renovated its pre-cookers.

Carmel Canning Co., J. R. "Buck" Perry, manager, has rebuilt all its canning lines, and has put in a new line for 8-oz. oblongs. The cans will be closed with a high speed American Can Co closing machine.

Custom House Packing Co., Barney Kitchen, manager, was equipped with three Neptune Process Machinery Co. automatic sardine packing machines. A new tall line has been put in, as well as a new 5-oz. line. American Can Co. closing machines have been put in, as well as a new Universal Canning Machinery Co. pre-cooker.

California Packing Corporation, Thomas Noice, superintendent, has enlarged its stickwater evaporator plant, and added additional oil storage tanks.

Water Treated and Filtered

San Xavier Fish Packing Co., Frank Raiter, president and general manager, has installed a chlorination system plus a filter system which takes out sand, minute bits of sea weed, and other material held in suspension from the sea water used in processing sardines. The company has also developed a new cellophane wrap for its 8-oz. oblong package.

Oxnard Cannery, Inc., has rebuilt its pre-cookers, installing wire draper belts. A new can washer has been put in, and the packing plant has generally been modernized. *Don Reynolds* is superintendent of Oxnard, taking the place of the late Lee Durand, who was superintendent for many years. Mr. Reynolds was formerly with the *F. E. Booth Co., Inc.*, and was also with the United States fisheries rehabilitation program in Korea.

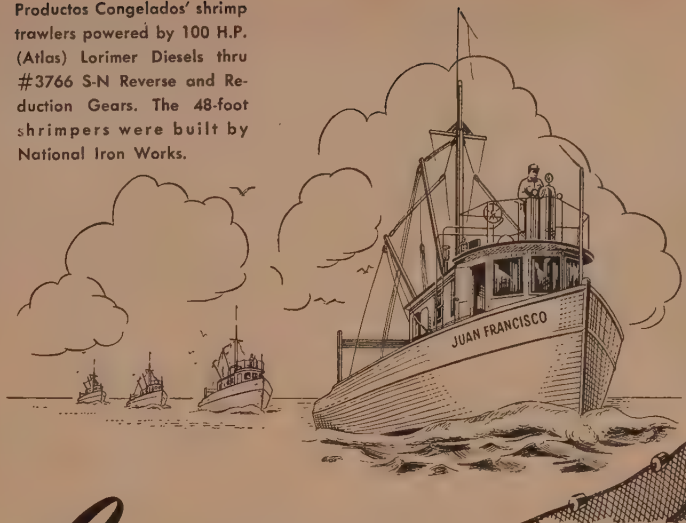
B. C. Early Frozen Stocks Down Slightly

Frozen fish stocks in British Columbia this summer were less than in 1949. The overall total of 14,900,000 lbs. at July 1 compared with 15,402,000 pounds during the same period last year.

Halibut, as usual, was at the top of the list among cold storage stocks. The 9,087,000 lbs. recorded July 1 was slightly down from 9,129,000 a year ago. However, the figure represented a substantial increase from June 1 when the total of frozen halibut in stock was 6,711,000 lbs.

Pacific herring in storage ran to some 1,600,000 lbs., compared with 1,800,000 a year previous.

Productos Congelados' shrimp trawlers powered by 100 H.P. (Atlas) Lorimer Diesels thru #3766 S-N Reverse and Reduction Gears. The 48-foot shrimpers were built by National Iron Works.



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One of 3 welded steel tuna clippers designed by G. Bruce Newby and built by Avondale Marine Ways, Inc., Westwego, La., for West Coast fishing fleets. Like sister ships *Excalibur* and *Santa Anita*, the *Sea Magic* is 128 ft. long and powered by a 900-hp. General Motors diesel engine. Cruising range, 10,000 miles.

To carry the power of "Sea Magic," they chose Monel

The big steel tuna clipper "Sea Magic" takes the most practical way to prevent shaft failure.

A 6¾-inch diameter Monel® shaft carries the power of "Sea Magic".

Built by Avondale Marine Ways, Westwego, La., this welded steel vessel is still *another* addition to the fast-growing fleet of fishermen carrying Monel shafts.

Why *Monel* for all these ships?

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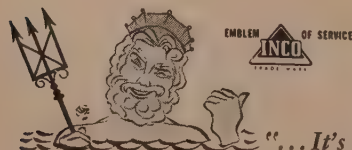
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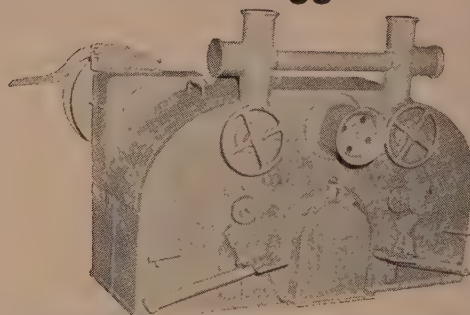
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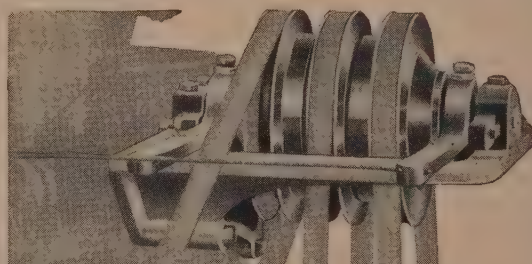
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High-Priced Cured Salmon Pack "Normal"

Mild cured salmon volume at presstime was estimated by close observers as somewhat ahead of 1949 to even date, but closely in line with the "normal"—this being defined as the average of the past five years to that time.

Late August landings of Chinook were dwindling despite a new upsurge in prices all the way from the Oregon Coast to Cape Sancer.

Buyers and sellers alike seemed resigned to the fact that mild cured salmon would be priced at a record level, but that the boom in buying would take anything but poor quality without much question.

In Alaska the Silver run was developing normally, but very few Silvers were being mild cured.

B. C. Albacore Catch Closely Parallels 1949

With more than 75 British Columbia boats engaged in the fishery this season, the Albacore catch in northern waters appeared to be closely paralleling the experience of 1949.

Most of the deliveries were made to Victoria to save the longer run through the Straits of Georgia to Vancouver, and at August 8 the Albacore landings there totalled 370,000 pounds, representing the result of about two weeks' fishing.

At Victoria, the price paid to fishermen was \$350 a ton; in Vancouver \$400 to compensate for the additional mileage. A few deliveries brought a higher price at the Island port, the general average being higher than last season. Victoria and Vancouver landings probably aggregated 500,000 pounds for the first two weeks' fishing, compared with the total catch of about 2,200,000 tons last year.

It was expected that the Canadian Albacore fleet would continue to operate until October, although catches would probably slacken off in September.

Port Heiden Reopened For Salmon Fishing

Field studies showing that a late local run of salmon to Port Heiden, on the north side of the Alaska peninsula, could be utilized without ill effect, the Fish and Wildlife Service in August uttered amended regulations permitting fishing in Port Heiden with gillnets and beach seines from Aug. 10 to Sept. 30.

"Havana" Is Tagging Halibut to Westward

The International Fisheries Commission currently has had the Seattle halibut schooner *Havana*, Capt. Harold Hansen, fishing and tagging halibut for scientific purposes in the Sanak Island and Shumagin Islands regions. She worked both east and west of the Shumagins on a tagging program designed to give evidence as to the rate at which the halibut stock in those Westward grounds is being removed by the fishery.

In charge of the work for the commission was William Hardman, assisted by Richard Myhre.

B. C. Whaling Venture In Its Best Year

This year's operations of Western Whaling Corp., subsidiary of B. C. Packers, Ltd., have been more successful than in any previous season, according to President John M. Buchanan, who said 170 whales had been caught up to about mid-season. Occasionally seven or eight whales have been taken in a single day.

Officials of Western Whaling Corporation say that the newly acquired whaling ship *Bouvet*, delivered from the United Kingdom this spring, has been particularly successful.



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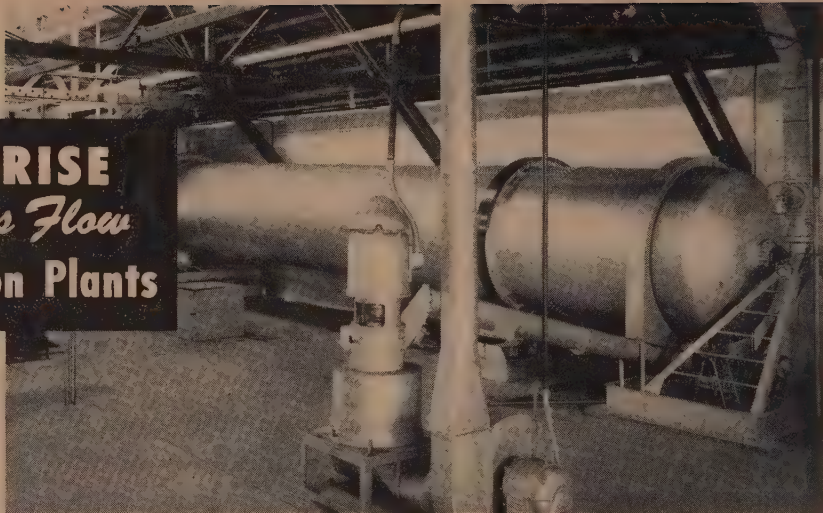
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Willapoint Firm Undergoes Change In Management

Sudden shift in the management of Willapoint Oysters, Inc., occurred about the middle of August, when it was announced that R. H. Bailey, who had been president of the company for some time, was no longer an officer, although remaining as a director.

Operations of the company were announced as continuing under the management of Ward C. Kumm, Seattle attorney, and Verne Hayes of the Coast Oyster Co. Arthur A. Lillie will be in charge of sales.

Offices of the company have been moved from 423 Bell Street Terminal to 548 Central Building, Seattle.

Mr. Bailey says that he continues to control Bay Point Oyster Farms, Inc., which with Willapa Oyster Farms each owned 45½% of the stock of Willapoint Oysters, Inc., the marketing agency for their production; and that Bay Point Oyster Farms will continue in the oyster business independently. Its offices are at 407 Lloyd Bldg., Seattle.

Jap Canning Processes Viewed Dimly by SCAP

Important to buyers and sellers of Japanese canned tuna concerned with offering a product which conforms to rigid U. S. standard of inspection and packing controls is the following from a recent weekly summary of SCAP's Natural Resources Section:

"Canning procedures are fairly uniform throughout Japan. An excessive amount of hand labor is used, and too little attention is paid to quality-control measures such as precook and quality of oils and sauces added.

"A rather wide range of sterilization processes was noted in the canneries visited. Retorts in only a few of them were properly equipped with recording thermometers, mercury thermometers, pressure gauges and vents."

Two Men Die In Gun Play on "Neva"

A fight which broke out in the Oriental quarters of the floating cannery *Neva* of the Pacific American Fisheries just before she left Prince William Sound for Excursion Inlet took the lives of two men. One of the Filipinos involved was shot to death and another man, a Negro bystander, was killed by a glancing bullet.



The 65' seiner *Cape Dorset* is one of the newest additions to British Columbia's fishing fleet, having been launched recently at Sterling Shipyards, Vancouver, B.C., for The Canadian Fishing Co. Two sister vessels were launched at the same time—*Cape Devon* and *Sea Master*, of similar dimensions. *Cape Dorset* is powered by a 215-hp. "Caterpillar" diesel; *Cape Devon* by a 230-hp. Buda diesel and *Sea Master* by a 250-hp. Buda unit. Built from modified plans of H. C. Hanson, Seattle, they are among the most powerful seiners on the Canadian west coast.

August Run of Prince William Herring Shows After 7 Years

Herring fishing on Prince William Sound held up well this summer for the first time in at least seven seasons, and brought a lot of lift to the spirits of the fishermen and operators here.

Although some boats pulled out for California at the end of the first week in August, fair fishing continued well past that date, and on Aug. 12 at least was rated as "heavy."

The fish oiled better than those of Kodiak Island area, but not as high as Prince Williams of some past years. As a matter of fact, some operators inclined to the belief that the current catch of herring were not typical P.W.S. fish, and might possibly represent a shift in that fishery which would bring back the fall fishing of former years.

Per plant catch to presstime seemed to be running somewhat ahead of Kodiak.

The island area had pretty fair fishing, but most disappointing yield,

during the early part of the season; but ran into a flat spot the middle of August. The Raspberry Strait plants were quite close together, and had fair volume; much better than the Zachar Bay operation.

In Southeast Alaska progress of the season saw little improvement in a dismal situation and fishing continued poor to punk.

Market for meal fastened a bit with the initiation of sardine fishing in California, and when it became evident that the nation's soy bean crop would be very heavy this year. Prior to this dip meal prices had moved moderately upward.

Deep Sea Fishermen's Union Agent Dies

Carl Lund Ness, who had been Seattle business agent of the Deep Sea Fishermen's Union of the Pacific for some time, died in a Seattle hospital Aug. 3. He was a native of Norway and had lived in Seattle for 27 years.

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the
name**

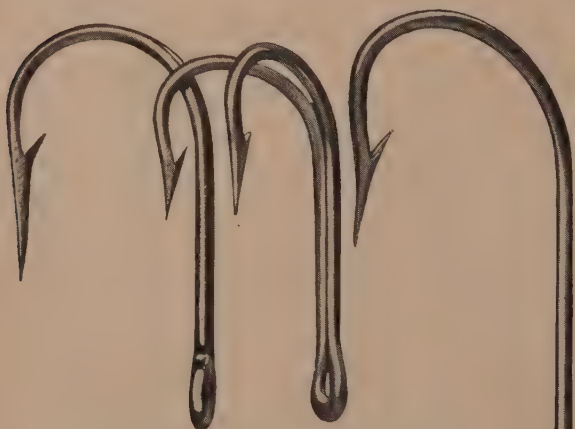


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OLYMPIC ALASKA NEPTUNE

150-Ft. Wood Clipper Building at San Diego

Campbell Machine Company, San Diego, this month began construction of a new wood major tuna clipper, 150' by 31' by 14' for Capt. Joe S. Rogers and nine associates, who are owners of the clipper *Navigator*, also built by CMCo. a few years ago. The new clipper is practically a sister vessel except that it will have three additional frames.

Of modified cruiser stern, the vessel is to be powered by a 6-cyl. Union diesel, 840-hp., supercharged, with 8" Monel tail shaft and Goodrich Cutless bearings. Auxiliaries are two Unions, 6 cyl. 190-hp., direct connected to 150-kw. generators. A third standby diesel will probably be added.

Refrigeration will consist of four 6½ by 6½ compressors, driven by 40-hp. motors, and the all-brine system will take care of approximately 400 tons. The clipper will be equipped with all the latest navigational and operational devices.

Goodrich Junior Fishing Troller "Deanie Boy"

There's another Henry Goodrich in the fish business on the Columbia River these days.

He's Henry Jr., 17-year-old son of the vice-president and manager of the New England Fish Co. of Oregon, who is operating the salmon troller *Deanie Boy* on a strictly commercial basis, with his friend Tom Howard as crew.

They brought the 30' vessel to the Columbia River from Yaquina Bay, had her completely overhauled at the Astoria Marine Construction Co., and got her to sea for the August fishing.

Capt. Goodrich is the grandson of C. F. Goodrich of Victoria, B. C., former president of the Sooke Harbour Fishing & Packing Co.

Steel Shrimp Trawler

Maria V, 43' all-steel shrimp trawler, has been sold by Anthony Bozanich, Los Angeles harbor ship broker to Impulsora Pesquera de Mazatlan, S. A., Mazatlan, Sin. Mex. This is a new firm which will erect a shrimp freezing plant at Mazatlan, engineered by Carlos Unger Ferreira, Mr. xecio aCMF. SHDRL UUU reira, Mexico City. The 165-hp. Graymarine-powered trawler becomes part of a fleet now being assembled to serve the freezing plant.

Fellows & Stewart Move

Fellows & Stewart, one of the oldest shipyards in Southern California, announced last month the firm was moving from its long-held location on Terminal Island to new location on the site held by the wartime California Shipbuilding Corporation on the same island.

Two docks and about five acres of land are to be occupied and a new 1,000-ton floating drydock is to be built. About three months will be required to make the switch from the present location to the new one, about a mile west. Reason for

the move is that on the present site Terminal Island is sinking rapidly and major steps would have to be taken to keep the yard in operation, including the building of a new dike.

3 Campbell Drydocks

Campbell Machine Company, San Diego's pioneer tuna-vessel building yard, last month was to put into operation its new three-unit floating dock system, for which three new docks have been built. Each drydock has its own individual slip, with an adjacent repair dock. Two are 1,000 tons capacity; the third, 450 tons.

Announcing—the new Standard Electronics line of



Model MT-271—Long range, 6 channel, heavy duty equipment. Ideal for offshore fishing, long range cruising, and similar service. Available for 32 V. d.c. or 115 V. a.c.

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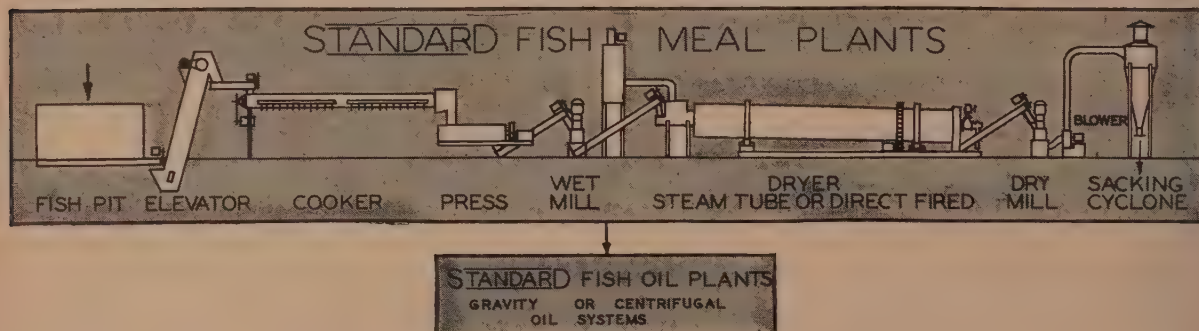


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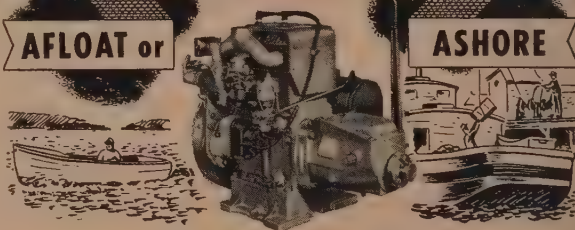
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No Jap Fishing Now In Bristol Bay, Says SCAP

"No extension of Japanese fishing areas is contemplated which would include salmon fishing in Bering Sea and Bristol Bay."

This statement is included in a cable dispatched by SCAP, Tokyo, to the Department of the Army recently.

It evidently was prompted by a recent letter written by Senator Knowland of California to the Army, in which he expressed concern that southward expansion of the Japanese fishing area indicated an intention later to expand that area northward and eastward to permit Japanese fishing operations in Bering Sea and Bristol Bay.

The current extension of Japanese fishing to the Equator has been strongly protested by the government of Australia; but this protest was summarily rejected by SCAP with the statement that the Japanese operations would be under limitations which would prevent undue interference with fishing encouraged by Australia.

The Australians raised the point that the Japanese desired extension of their fishing area not so much to provide food for Japan as to provide tuna for export.

SCAP's reply said General MacArthur, under his authority from Washington could not consider domestic or export use of marine products as a criterion in limiting the Japanese fisheries.

In short: Japan will be permitted to fish for sale as well as for food.

Early this summer a Japanese fleet of 25 long-line tuna fishing vessels and a 10,000-ton freezing mothership were operating in the Caroline and Marshall Islands region. They were to be joined later by two Japanese research vessels for Oceanographic and biological studies.

MacMillan Gives Scholarship

H. R. McMillan, chairman of the board, B. C. Packers, Ltd., Vancouver, has privately established a per-

sonal loan fund with the University of British Columbia whereby deserving students who are children of company employees, may qualify, on reasonable academic background, to receive assistance to enable them to attend the university.

B. C. Packers, as a company, has been making an annual grant to the university towards the support of its course on fisheries.

Frank Buono Heads Fish Mongers Club

Frank Buono, head of the San Diego Fishermen's Association, was recently named the new president of the famed Fish Mongers Club of San Diego. He succeeded another charter member, Ollie Lyons, Standard Oil Company. Named as vice-presidents were Victor Nigro, Southern California Fishermen's Association and vice-consul for Costa Rica; Tom Smith, retired chief warden, Fish & Game Commission. Secretary, succeeding himself, was Fred V. Coniff, San Diego Fish Company. A new office was created, sergeant-at-arms, with Jack Donnelley named. Next dinner meeting of the club, which features its specialty, ciupino, is set for September 8.



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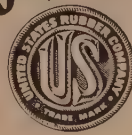
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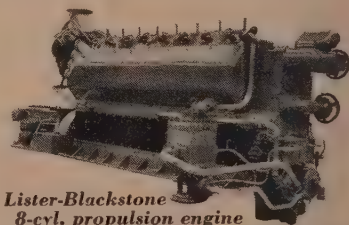
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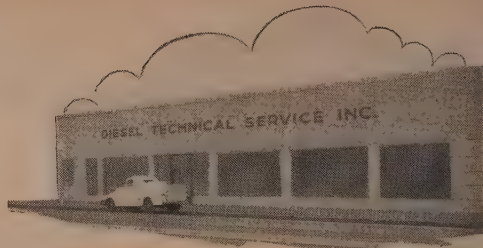
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New High Fishway at Hell's Gate

As a part of its long-term program for improving the passage for spawning Sockeyes up the Fraser River through Hell's Gate, the International Pacific Salmon Fisheries Commission has decided to proceed with construction of a new high-level fishway on the left bank of the river to facilitate early runs when river levels at the Gate are above 56'.

The project will be carried out by the commission's own crew under the general direction of Chief Engineer Milo Bell.

This year at mid-August the river was unusually high—slightly above 40'. Levels between 25 and 40' form definite blockades to migrating fish. Salmon going through the fishways could be clearly seen for the first time this season.

Although built primarily to assist Sockeyes, the fishways have helped the Coho and Spring runs, according to evidence collected by the Commission. Springs have been found spawning in several new areas since the fishways were built.

Commission biologists report that there has been a fair-sized run of

spawners to the Pitt River this year.

Cost of the new high level fishway is estimated at \$130,000 and it will take about five to six months to complete.

A. J. McCallum, Seattle Fish Dealer, Dies

Alexander J. McCallum, who for many years had been a factor of prominence in the fresh, frozen and cured fish business of Puget Sound and Alaska, died about the middle of July after an illness of several months.

President of McCallum - Legaz Fish Co., Mr. McCallum also had served as president of the Seattle Fish Exchange, Inc., and of the Seattle Fish Divoteers. He was 59 at the time of his death.

Mr. McCallum was a popular figure on the Seattle waterfront and was widely known throughout the national fish trade. In addition to his headquarters establishment at Seattle, the company maintains an operation at Sitka, and occasionally in British Columbia.



Dr. John Lawson Hart, new director of the Pacific Biological Station, Nanaimo, B. C., where he succeeded Dr. R. E. Forester.

Skinner-and-Boner Installed at Petersburg

Pacific American Fisheries, Inc., installed a line of its skinning and boning machinery in its big cannery at Petersburg for the current season.

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Fancy CRAB MEAT BRINE ADDED

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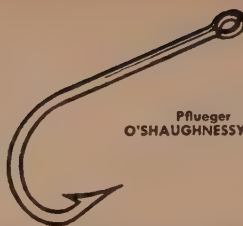


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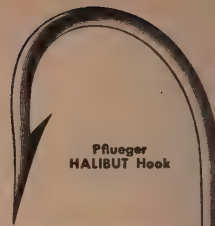
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Two New Shrimp Trawlers for Anguis

Nick Anguis, shrimp trawler fleet owner at Rocky Point, northern tip of the Gulf of California, was adding two new vessels to his fleet of six last month. The trawlers, 50' by 14', are to be driven by "Caterpillar" diesels, D318 and D315 models, 53- and 80-hp respectively. Reduction is Twin Disc 3:1. Light plants are Universal.

All accessories were supplied by Seaside Supply Company, San Pedro, including netting, ropes, propellers, etc. Anguis, a pioneer in the shrimp and totuava trade, ships his product to Southern California by refrigerator truck and is an independent operator.

Eureka Mild Curing Started by Cooperative

Coincidental with the improvement of salmon operations along the northern California coast, the first mild curing of the season was launched in early August by the Eureka Cooperative Fisheries, under the direction of Al Strachan, formerly of Vancouver, Canada, who joined Co-op a short time ago.

The first tierce was put down at the Eureka plant August 4, and

present plans call for extensive packing both at Eureka and Fort Bragg, where some fish already have been cured. The firm has on hand 200 casks, indicating the schedule to be followed provided the fish are available.

Once a feature of the trade at Eureka, mild curing has been notable by its absence from the field in that port in recent years.

The Cooperative company also is planning to smoke some salmon and black cod this season.

Sardine Seiner Bought for Shrimp Freezer

The San Pedro purse seiner *Conte Savoia* has been sold to Congeladores de Productos En Alta Mar, S. A., Guaymas, to be converted to a shrimp freezing vessel, to replace the *Martha Aurora*, recently destroyed by fire. Transaction was handled by M. B. Parke, Jerry's Boat Sales, Terminal Island. Refrigeration contract has been awarded to R. E. Manns Company, Wilmington.

The Guaymas company is owned by Capt. Diego Martinez Corona and his brothers-in-law, E. H. and Louis Gayou. The vessel, probably renamed, will become a companion freezer to the *Admiral Brenton*.

70-Fathom Bank Found Off Willapa

Good news of a new bank off the Washington coast was received by North Pacific fishermen early in August in a message from the Fish and Wildlife Service exploratory vessel *John N. Cobb*, which messaged that she had found an uncharted seamount 280 miles west of Willapa Harbor.

Her sounding gear found water as shallow as 22 fathoms at 46° 44' N. Lat., 130° 47' W. Long. The Cobb reported that there was an extensive area over which the depth was only 70 fathoms. Surrounding waters were 1,400 to 1,600 fathoms deep.

The Cobb ran some of her long-line gear on the seamount and took heavy catches of large red rockfish, averaging 15 lbs., and all of first class quality.

Custom House Packing Prepares for Reopening

Custom House Packing Co., Monterey, which was closed the entire sardine season of 1949-50, will be open for business during the coming season, and will pack a complete line of ovals, talls and 5-oz., according to Barney Kitchens, sales manager.



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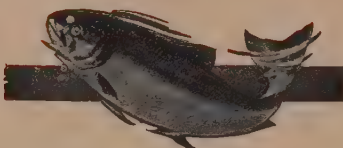
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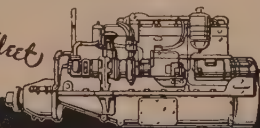


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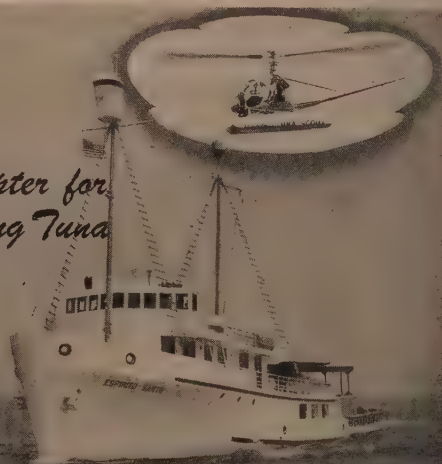


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"Tara Bell" Sliced Smoked Salmon Perfected

Bell Smoked Fish Co., San Francisco, has improved its pack of smoked sliced salmon to such an extent that the package doesn't have to be kept under refrigeration, according to Joe Tarantino, managing partner of the company, yet it has all the flavor of the refrigerated article.

Bell Smoked Fish Co.'s "Tara Bell" smoked sliced salmon comes in handsome lithographed cans furnished by the American Can Co.

The company is also becoming a factor in the mild cured salmon business. This season the company has put up approximately 250 tierces.

North California Troll Salmon Fishing Gains

With the turn of July into August, salmon fishing along the northern California coast picked up and early August saw the best fishing since the season opened.

Fishermen were hoping that August and early September runs of salmon would boost the total for the year, which to date is far under par.

Testing Tuna Seining On Mid-Pacific Fish

Current cruise of the research vessel *John R. Manning*, operating out of Hawaii for the Pacific Oceanic fishery investigations is designed to test the effectiveness of tuna purse seining on the tunas inhabiting the waters around the Phoenix Islands. Efforts will be made to catch these oceanic fish by the kind of gear effective along parts of the Continental coastline.

In addition, the *Manning* on her return trip to Honolulu will test tuna trolling gear in the vicinity of

PRICE SLASH ON SYNTHETIC "A" DEALS LIVER FISHERMEN LOW BLOW

Price-cutting on synthetic Vitamin A, announced recently by Hoffman-LaRoche, Inc., New Jersey chemical manufacturer, dealt a new and damaging blow to the fisheries based or partially dependent upon Vitamin A fish liver oils.

Although seriously depressed, the market for vitamin livers suffered further collapse following the Hoffman-LaRoche announcement of a 25% reduction in the price of its synthetic products, which are currently quoted at 24c per million units in 1,000,000-unit standardized

concentrations, in either the palmitate or acetate form.

Taking a chortle over the rise of the synthetic Vitamin A, Paul J. Cardinal, vice-president in charge of the Hoffman-LaRoche bulk vitamin division, said in announcing the price cut: "Here is one case where organic chemistry has overwhelmingly bested nature."

Intensifying the effects of the rise of synthetic Vitamin A, and sharp reduction in its price, are continued heavy imports of vitamin oils, notably from Japan.

Kingman Reef, where this gear proved very effective last spring. It is desired to know if the populations susceptible to troll gear are to be found in Kingman waters in the fall as well.

Canada's Market Pattern Due to Follow 1949

The canned fish marketing trend in Canada is expected to follow the general pattern of 1949, due to stability of the Canadian market which absorbed 60% of the total canned fish pack.

North American markets, which accounted for 80% of the marketed value of Canadian fish last year, are expected to be stronger. Canadians themselves are expected to eat more fish.

In the United States Canadian fishery products are in a relatively favorable position.

Sales to the United Kingdom for the year will probably consist only of the \$5,000,000 contract for canned salmon and token shipments of canned lobster from the east coast.

Tuna Association Spreads Jobs Among Specialists

The complex problems of the international high seas tuna fishery have made necessary a division of activity within the American Tuna-boat Association, San Diego. Harold F. Cary, general manager, last month announced that leading members of the organization would head special committees to handle new and pressing matters.

In cooperation with the ATA board of directors, Mr. Cary named the following to head these committees: Frank Perry, Foreign Affairs; Edward P. Silva, Research; William A. Hoss, Legislation; A. D. Madruga, Tariff; Frank Gonsalves, Labor Relations, and M. O. Medina, Membership.

Capt. Oakley J. Hall, president, San Diego Marine Construction Company, San Diego, returned to his home port in early June, from a cruise into the Gulf of California in his big yacht, *Sueja III*. Among other guests he was accompanied by Capt. Joe Brennan, retired port director, San Diego harbor.

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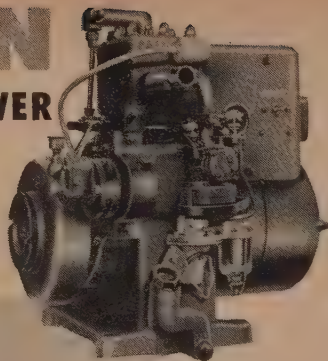
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- Fancy Smoked Sable Fish
- Fancy Oregon Crab Meat
- Fancy White Meat Tuna
- Fancy Solid Pack Tuna
- Fancy Blueback Salmon
- Fancy Shad Roe

B. C. Albacore Craft Burns Off Mexico

Misfortune overtook British Columbia's pioneer Albacore and tuna fisherman, Norman G. Ryall, when his vessel *Rosalie III* was burned off the Mexican coast after he had made a few trips to the tuna grounds.

Capt. Ryall and his two crewmen, Verne Hansen and Leroy Kullman, both of Vancouver, B. C., were apparently uninjured, but the boat was reported a total loss.

Capt. Ryall had outfitted *Rosalie III*, in which he had fished Albacore off the Oregon, Washington and British Columbia coasts for the past four years, with refrigeration so he could operate far from home base in British Columbia. This was the first season in which he went so far afield as Mexican waters. He had planned to follow the Albacore northward to British Columbia and was to make his final trip for Tulloch Fisheries.

Men Drift Six Days

After drifting six days in their disabled boat *Helni*, two Astoria fishermen, Herman Johnson and Ralph Corley were picked up about 30 miles off Newport, Ore., by the coast guard cutter *McLane* and towed into Yaquina Bay.

Their 50' vessel was sighted by the Union Oil Co. tanker *L. P. St. Clair*, which called the cutter. The men said they had plenty of food and water and had not suffered as result of their enforced idleness.

Vessel Owners' Manager Enters Insurance Co-op

Harold Christenson, secretary of the Fishing Vessel Owners Association of British Columbia and recent-

ly associated with Nelson Brothers Fisheries, Ltd., at Vancouver in charge of gillnet accounts, has been appointed secretary-manager of the Pacific Coast Fishermen's Mutual Marine Insurance Company, a co-operative organization.

Christenson succeeded Les Wylie, who recently resigned after being with the company since its inception.

Former McGowan Cannery Now Active as Keystone

Ted Holway and Roy Kemmer have the old McGowan cannery at Ilwaco operating as the Keystone Packing Company, canning salmon and tuna, and engaging actively in the fresh fish business as well.

This spring saw the company canning some Bluebacks and Columbia River Chinooks.

Company personnel includes David "Easy" Herrold as general fish buyer, Berny Taylor, Columbia River buyer and Ernest Markham, manager at Taholah. Charlie Koe, cannery foreman, is the son of Go Funn who was cannery foreman in the old Seaburg cannery and later the McGowan cannery as long ago as 1890.

Kayler-Dahl Speeds Up

Capacity of the Kayler-Dahl Fish Co. cannery at Petersburg, Alaska, was increased this year by speeding up the half-flat line and installing double-ended retorts to facilitate handling the fish.

The Kayler-Dahl cannery operates in coordination with a cold storage plant and a shellfish installation. A noteworthy feature of the cannery is its equipment for holding salmon in refrigerated brine whenever it is necessary to carry them from one shift to another.

Sonar Sardine Search Tests Electronic Gear

It's even census taking time for Mr. and Mrs. California Sardine and all the little Sardines. Like all other Americans, they are undergoing a census with personal facts listed as to their occupation, sex, age, habits and combined economic worth.

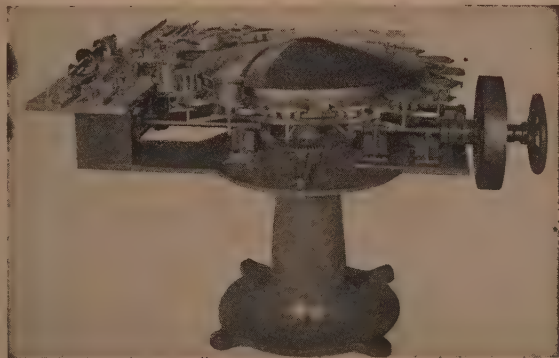
Their private lives will be probed for answers to questions as to what they are eating, their association with other fishes; food selectivity study, and other questions.

This is some of the work being done aboard the State's marine vessel *Yellowfin*, off the Coast of California, and in the marine fisheries laboratory of the Division of Fish & Game. Beside pencil and paper this highly specialized type of census requires such devices as radar, bathythermograph, sonar, recording depth instruments, technical fishing gear and trained personnel.

California's sardines will be checked every year. Beside the Division of Fish & Game, three other agencies, the California Academy of Sciences, Scripps Institution of Oceanography and the U. S. Fish & Wildlife Service, which form the technical agencies of the California Marine Research Committee, are looking into the private life of the Sardine family.

The committee's objective is to obtain enough scientific facts to make possible an estimate of the year-crop of sardines two years in advance. This estimate will allow a wise policy of harvest regulations.

Supported by legislative funds and sardine industry taxes the California Division of Fish & Game is working on investigation of the fishes which compete with sardines for food; determination of survival of young sardines; and assessment of numbers of each year class.



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LINES and LEADERS



Pictured here is the new plant of the American Can Company, building at Wilmington, Calif. Containing approximately 200,000 square feet of floor space, the plant will be built with an eye for future expansion and incorporate the latest developments in industrial design. The Wilmington unit will supplement the American Can Company's existing plant at Los Angeles, and will supply container requirements of fish cannerys on Terminal Island as well as citrus and other food packers in the Southern California area. C. W. Roberts, vice president in charge of the Pacific Division, who presided over ground-breaking, said the schedule calls for full operation by mid-year 1951.

NEW CAN PLANT BUILDING TO SERVE L. A. AREA FISH CANNING INDUSTRY

Ground-breaking for new facilities to accommodate California's expanding fishing industry, already the fourth in dollar volume in the state, took place recently on the 35-acre plot near Wilmington.

The Harbor plant of the American Can Company will be the eighth factory operated by Canco in California under C. W. Roberts, vice-president in charge of the Pacific division.

The new plant will manufacture food cans with a rated capacity of 350,000,000 containers a year and employ between 400 and 500 men and women when at peak production. It's located on a strategic 35½-acre site on which converge trucks from both the Harbor fish canneries to the south and the Orange County citrus growers to the east. Other Pacific coast Canco plants are located at Los Angeles, Oakland, San Jose, Monterey, San Diego, San Francisco, Portland, Sacramento and Seattle.

The Harbor plant will be a streamlined, one-story steel and brick building which Mr. Roberts has termed the most modern can factory in the world. Plans call for its completion and full operation by mid-year, 1951.

Pending completion of the plant, the company has leased the Terminal Island warehouse of the National Metal and Steel Corporation, which will serve as a warehousing and distribution point for cans for harbor area fish cannerys. The warehouse contains more than 100,000 square feet of floor space in which more than 20 million cans can be stored at a time.

The Harbor plant represents an investment of several million dollars, and primarily will supply container requirements of fish cannerys on Terminal Island. It will also free present facilities for the needs of the expanding citrus industry. The spacious location provides

ample room for future growth space with the agricultural and industrial growth of the state. Substantial growth has been shown by the California fishing industry, now rated fourth in the state, and especially by tuna, centered almost entirely in the coast region between San Pedro and San Diego. Further pack increases are in prospect for frozen citrus concentrates as well as for other citrus and fish products. Additional can production facilities are required to adequately serve the food canning industry.

The Harbor plant will be similar to the modern-design factories that the company has built in other areas. Containing approximately 200,000 square feet of floor space, the one-story, monitor-type structure will incorporate the latest developments in industrial design.

Attractively landscaped grounds will be maintained around the plant and will include a parking area for employees' cars.

The plant will supplement the American Can Company's existing plant in Los Angeles. This present factory produces both fibre milk containers and packers, cans for fish, citrus products and other food items, employs approximately 1,350 men and women and produces more than 1,087,000,000 containers annually.

The Wilmington ground-breaking was attended by Goodwin J. Knight, lieutenant-governor of California, and Vincent Thomas, San Pedro assemblyman, beside many other officials.

Other Canco officials on hand were Roger Lueck, manager of sales, Pacific division; Robert C. Stolk, sales division manager, Pacific division; C. F. Lausten, manager of manufacture, Pacific division, and Robert L. Eddy, sales promotion manager, all of San Francisco; G. T. Bergstrom, plant manager, Los Angeles factory; Alexander Black, district sales manager, who presided at the ground-breaking ceremonies.

West Coast E. & E. Named North Calif. Chrysler Distributor

West Coast Engine & Equipment Co., Berkeley, Calif., has been appointed Chrysler marine engine distributor for northern California, according to a recent announcement by Muirson Wright, president of West Coast.

Sales and installation services and a complete stock of parts are located at the main office in Berkeley, at Eureka, 32 2nd Street; Noyo Harbor, Fort Bragg, and at the Hover Equipment Co., 378 Franklin Street, Monterey, Calif.

A. L. McCasland, who has long been associated with the sales and service of Chrysler marine engines in California, is in charge of the Chrysler program for West Coast Engine & Equipment Co.

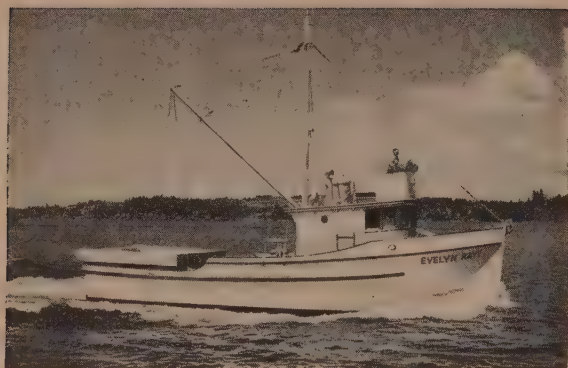
West Coast Engine & Equipment Co. has greatly expanded its parts facilities to take care of Chrysler customers. The company has a most complete repair and overhaul facilities, with Chrysler factory trained mechanics.

Although the present world situation may create some shortages, Mr. McCasland assures Chrysler customers that West Coast Engine & Equipment Co. has an adequate stock of parts on hand to take care of all needs, and will do its best to maintain this service.

Universal Catalogs Offered

Catalogs and price lists for Universal's new Super-Six marine motor, which was described in the July issue of *PACIFIC FISHERMAN*, are now available for distribution. Fishermen and others interested may obtain them from their nearest Universal dealer, or by writing to Universal Motor Company, 423 Universal Drive, Oshkosh, Wisconsin.

Birger A. Guthe Co., Long Beach, has announced its appointment as distributor for the world-famous Lister-Blackstone diesel engines, 3 to 480 hp. The Long Beach company also handles American Hammered Piston Rings, Sharples Centrifuges and Thompson valves.



New Type, 45' ALASKA SEINER

Get your order in early for this new type Alaska seiner by Grandy.

A rounded stern makes this 45x14-ft. seiner a better sea boat, yet retains the essential advantages of a transom stern . . . good carrying capacity and speed. Powered by D-318 Caterpillar Diesel. Optional is Chrysler Royal with $3\frac{1}{2}$ to 1 reduction gear. Order now for early delivery!

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New, Lower Horsepower Diesel Series By Enterprise

A new series of smaller, heavy-duty marine diesel engines has been announced by Enterprise Engine & Machinery Co. They are designated as the Enterprise M-series diesels. Built in 3, 4 and 6 cylinder models with 8" bore and 10" stroke, these engines range from 68 to 240 hp. at medium speeds of 450 to 750 rpm. All models are 4-cycle.

The M-series extends the lower HP range limit of the Enterprise diesel line from its previous range of 180 to 1755 hp.

The result of more than four years research, engineering, plant and field testing, the M-series embodies all of the more advanced design, metallurgical and operational developments in the diesel engine field. These are compact, rugged power plants, designed for continuous, heavy-duty service with a minimum maintenance requirement. Small space and light weight contribute to the outstanding versatility of these medium speed, high capacity engines. They are equipped with standard makes of reduction gears.

The new Enterprise Bulletin No. M-16, now available on request, fully describes and illustrates M-series marine diesel engines. It is available from Enterprise Engine & Machinery Co., 18th and Florida Sts., San Francisco 10, Calif., or any Enterprise office.

Al-Pac Co., Nordberg Distributor, Opens New Seattle Headquarters

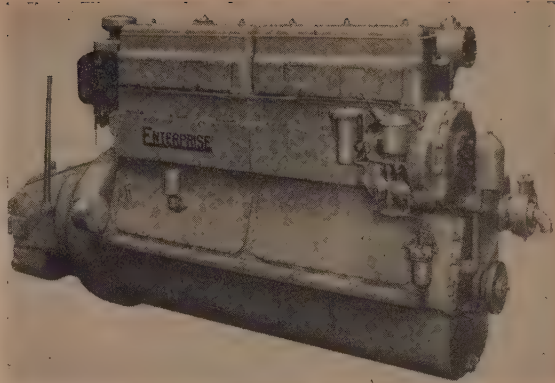
Al-Pac Engine & Equipment Co., distributor in the Puget Sound area and Alaska for the Nordberg Manufacturing Co., announces the opening of new offices, parts depot and marine installation facilities at 2520 Westlake Ave. North, Seattle, Wash.

The complete line of Nordberg marine engines, consisting of gasoline and diesel engines from 10 to 9,000 horsepower, will be handled by the Al-Pac Engine & Equipment Co. Parts and service for all types and sizes of Nordberg marine engines will be maintained at the Seattle location, which has complete dockside facilities for small boat engine installations.

C. S. "Carl" Harris, well known to fishermen and the marine trade all along the Pacific Coast, is manager. Bill Hough is in charge of parts and service.

The Nordberg dealer organization, form-

**New six cylinder
model M-Series Diesel
announced by Enter-
prise Engine & Machi-
nery Co. Other mod-
els in this series are 3
and 4 cylinders. The
M-Series is rated 68
to 240 HP @ 450 to
750 rpm.**



erly in effect with the old Al-Pac company, will remain intact, providing service for Nordberg users at all important points along the Pacific Coast and in Alaska.

W. F. Lieber, owner of the Motor Service & Machine Works, Nordberg marine engine dealer in Ketchikan, Alaska, reports the following sales and installations in his territory in recent months:

Model 230 Nordberg, direct drive, for cruiser *Marguerite*, owner John Deman. Model 232 Nordbergs for troller *Igo*, William Woods; and troller 31-A-968, T. Louis. Model 322 Nordbergs for troller *Cummins*, Gus Johnson; and troller *Hazella M*, Jens Thompson. Model 343 Nordberg for seiner *H & H*, Reggie Booth; and Model 344 Nordberg for combination seiner and halibut boat *Harry Jr.*, owned by George Woods.

Felix Powers Joins Carrier L. A. Refrigeration Distributors

Felix W. Powers, one of the best known fishing vessel and plant refrigeration engineers in Southern California, recently joined the C. E. Howard Corporation, Los Angeles, heading up the concern's refrigeration division, handling Carrier equipment.

Mr. Powers goes back a long way in marine refrigeration, in fact to the late John Heston's *Oceana Vance*, during World War I, so far as installations were concerned; and to 1909 in St. Louis, Mo., when he began working on ammonia compressor design.

Since then, with various connections, mainly on the Pacific Coast, Felix Pow-

ers has become the friend of scores of fishermen, particularly in the tuna trade. He has also engineered fisheries refrigeration afloat and ashore on both sides of the international border. A recent job, since he joined C. E. Howard Corporation, was supplying Carrier refrigeration for Capt. Nick Dragich's converted ATR to tuna clipper *Sea Lark*.

Phil Hover at Monterey Handles Chrysler and G.M.

Phil Hover, well-known Oregon marine engine man, has organized the Hover Equipment Co., 378 Franklin St., Monterey, Calif., and has been appointed Chrysler and General Motors marine and industrial engine dealer in the Monterey Bay area.

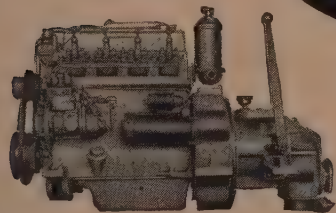
Hover Equipment Co. has complete repair and overhaul facilities. The company is particularly well equipped for service and installation of Chrysler and GM engines.

Mr. Hover has had many years' experience with GM diesel engines, having been a factory and service representative of the company.

Associated with Mr. Hover is Herb Andersen, also from Astoria, one of the most capable marine engine mechanics in the Pacific Northwest.

South Coast Co. has recently been appointed a dealer for the Newport-Balboa area by Pacific Division, Bendix Aviation Corporation. The company will handle the Bendix Depth Recorder with models ranging from 50 fathoms to 400 fathoms

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adjustable Labeling Machine, 1/2-lb. Tuna
can size, 307 x 113. **\$1,050.00**
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Standard Electronics Offers New Radio Line Through Graybar

Standard Electronics Corporation, New York, subsidiary of Claude Neon, Inc., has entered the marine radio telephone manufacturing field, with the production of four types of powerful marine radios, which will augment product-wise the company's activity in the AM, FM and television broadcast equipment industry, it was announced today.

The sets, which range in power from 12 to 80 watts and are designed to cover pleasure and commercial craft requirements, will be made available in a few weeks through the nation-wide facilities of Graybar Electric Company, which is distributing Standard's complete line of broadcast transmitter equipment formerly manufactured by Western Electric Company. Graybar will appoint marine dealers at strategic locations to install and service this equipment on all size vessels.

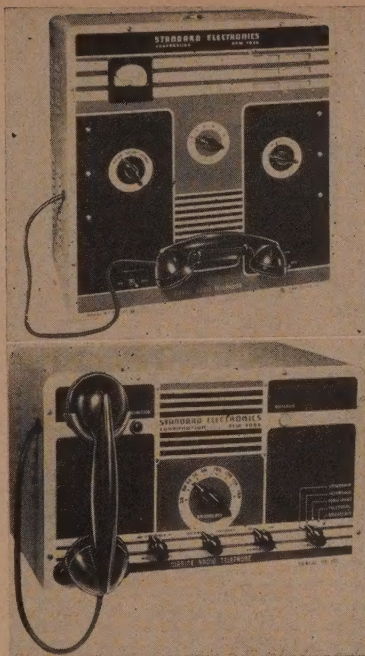
The new Standard Electronics marine radio telephone sets are subjected to stringent quality tests, with particular emphasis placed on power, efficiency, compactness and style.

Among the four marine radios to be marketed by Standard, is an extremely compact high-powered 12-watt unit at low cost for small boats and includes a standard broadcast band that can pick up all radio broadcasts available from shore. Another model, only 15" wide by 9" deep, operating at 35w. and having five channels, is considered the most efficiently designed marine radio telephone of comparable output yet developed.

The two larger units to be put on the market by Standard Electronics operate at 50w. and 80w. respectively, both having six transmitting and receiving channels. These more powerful sets provide adequate range on long trips and the six channels allow diversified Harbor Station coverage for larger pleasure boats and commercial craft. Featured on each of these units is a novel method of indicating the channel in use, by means of an illuminated lucite window.

All the sets operate on low battery drain and feature complete high precision low-drift crystal control of each transmitting and receiving channel. In addition, the sets will be rustproofed to give long trouble-free life.

These four Standard Electronics marine radio telephones constitute a natural development in the company's program to supply AM, FM and television broadcast transmitter equipment, as well



Models of new marine radio telephones announced by the Standard Electronics Corp., and to be distributed nationally by the Graybar Electric Co. Instrument shown above available in 80 W. and 50 W., while that below in 12 W. and 35 W., with separate power supply.

as servicing and supplying replacement parts for all Western Electric broadcast transmitting equipment now in use throughout the United States.

Standard Electronics is carrying out this correlated equipment production in Carlisle, Pa., where it has available complete modern manufacturing facilities with the most advanced type of test apparatus.

Standard Oil's Industrial Advertising Wins Award

Standard Oil Company of California, in stiff competition with large industrial advertisers throughout the country, recently won a first place award in the National Industrial Advertisers Association competition at Los Angeles.

Standard's "Engineer's Report" and "Engineer's Case File" series of adver-

tisements which appear in PACIFIC FISHERMAN were the unanimous choice of judges in the Petroleum and Coal Products division, and was presented "for the campaign which, in the opinion of the judges, is of outstanding excellence in its planning and execution."

The award was presented to F. R. Roper, senior specialist in the company's Advertising Department. Roper is president of the Northern California Chapter of the National Industrial Advertisers Association, and handled development of the winning program.

Intervox Has Good Year

At a recent meeting of stockholders of the Intervox Corporation a report by N. J. Rauch, secretary, executive vice-president, revealed that the company had a most successful year. Deliveries of Intervox equipment exceeded any previous year.

New directors elected at this meeting were Robert A. Welsh, D. C. Langdon and N. J. Rauch. Holdover directors are J. B. Breskovich and Robert Breskovich.

A. H. Anderson was appointed sales manager at this meeting.

Russell Wetherell Handles Sunde's Industrial Sales

Robert O. Bullwinkle, manager of Sunde & d'Evers Co. of Seattle, announces the addition to the firm's staff of Russell Wetherell, who will be placed in charge of industrial sales for the marine supply company. Mr. Wetherell is well known around Seattle, having been western division purchasing agent for the U. S. Plywood Co., and previously for the Olympic Foundry Co. He was also with the Seattle Hardware Co. for five years. He is a graduate of the University of Washington.

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No. 1 Oval Can Drainer, latest model.

No. 1 Oval Can Washer, manufactured by United Welding.



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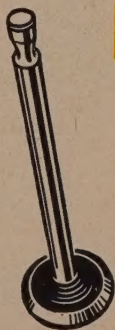
One thing you can bank on—if you've got a "Caterpillar" Marine Diesel under the hatch, you've got a reliable engine.

Arthur Hess, owner of the *Roseann Hess*, fishing out of Astoria, Oregon, says: "Our 'Cat' D13000 gives us high production and never fails to perform, in long hours of steady running. We start the engine and check it before leaving the dock, then forget it until we return at evening. 'Caterpillar' has the finest service facilities up and down the Coast. It's the engine for me."

Here is real trouble-free power. Fishing all last winter with a dragnet that sometimes brought in 20,000 pounds of fish at a single haul, Mr. Hess had no repairs whatever on his engine.

A big advantage with "Cat" Marine Diesels is that you can get dock-side service wherever and whenever it's needed. See your "Caterpillar" dealer about the right size engine for your boat—all the way up to 400 continuous HP. Ask him to *show* you.

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CATERPILLAR DIESEL

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Marine Engines

14

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